PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Attorney Docket No. 05-500-B

In re Application of:	)	
	)	
Jung Hee Park	)	**Examiner:** TBA
	)	
International Application No.: PCT/KR05/00133	)	**Group Art Unit**: TBA
U.S. Application No.: 10/585,586	)	
	)	**Confirmation No.**: 4450
International Filing Date: January 14, 2005	)	
U.S. Filing Date: July 11, 2006	)	
	)	
For: ATM Switched Router For Transmitting IP Packet Data	)	

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR WHO WE HAVE BEEN UNABLE TO LOCATE

Dear Sir:

Pursuant to 37 C.F.R. § 1.47(b), UTStarcom, Inc., the owner of *UTStarcom Korea Limited*, and the assignee in fact of the above-identified patent application, submits this Petition and respectfully requests the U.S. Patent Office to allow UTStarcom, Inc, to make the Application on behalf of inventor Jung Hee PARK who we have been unable to locate.

This Petition is being submitted with:

(i) Declaration and Power of Attorney signed by Robert J. Irvine, III, a person authorized by UTStarcom, Inc to sign on its behalf;

(ii) Statement Establishing Proprietary Interest By Person Signing on Behalf of Nonsigning Inventor and Statement Under 37 C.F.R. § 3.73(b);

06/19/2007 MKAYPAGH 00000095 10585586
01 FC:1463 200.00 OP

(iii) Declaration in Support of Petition Under 37 CFR 1.47(b) By Person Having Proprietary Interest to File Application on Behalf of Inventor, signed by Joo-Young Kim;

(iv) Memorandum of Law in Support of Petition Under 37 CFR 1.47(b) By Person Having Proprietary Interest to File Application on Behalf of Inventor, including exhibits, signed by Joo-Young Kim; and

(v) Declaration in Support of Petition Under 37 CFR 1.47(b) By Person Having Proprietary Interest to File Application on Behalf of a Nonsigning Inventor, including exhibits, signed by Jiwon Lim.

The last known address of inventor **Jung Hee PARK**, who is a citizen of Korea, is:

San 136-1
Ami-ri, Bubal-eub
Icheon-si, Gyeonggi-do 467-860
Republic of Korea

UTStarcom, Inc. respectfully submits that it has been unable to locate inventor **Jung Hee PARK**. Every attempt to obtain **Jung Hee PARK's** signature has been unsuccessful. As evidenced by the accompanying declaration of Jiwon Lim, continuous and diligent efforts have been made to obtain **Jung Hee PARK's** signature on declarations for this case. Based on such diligent efforts to obtain **Jung Hee PARK's** signature on the declaration for this case, and based on the fact that, even without Mr. PARK's signature, UTStarcom, Inc. is the owner of the present application, as demonstrated by Joo-Young Kim's Memorandum of Law in Support of Petition Under 37 CFR 1.47(b) By Person Having Proprietary Interest to File Application on Behalf of Inventor and Joo-Young Kim's Declaration in Support of Petition Under 37 CFR 1.47(b) By Person Having Proprietary Interest to File Application on Behalf of Inventor (attached), we believe that the requirements of 37 C.F.R. § 1.47(b) and MPEP § 409.03 have been met.

Filing of the application without Oath or Declaration executed by **Jung Hee PARK** is necessary to preserve the rights of Applicant UTStarcom, Inc. Applicant UTStarcom, Inc. will suffer irreparable harm if not allowed to apply for a patent for the above-referenced

Application because the United States Patent and Trademark Office will hold the present Application abandoned if it is without an executed Oath or Declaration.

This Petition is being submitted with the fee set forth in 37 C.F.R. § 1.17(g), which is currently set at $ 200.00.

Respectfully submitted,

Date: June 15, 2007

Robert J. Irvine, III
Reg. No. 41,865
McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, Ste. 3100
Chicago, Il 60606
Tel: 312 913 – 0001
Fax: 312 913 – 0002

Case No.: 05-500-B

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION FILED UNDER 37 CFR 1.47(b) and USC §118

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

the specification of which is attached hereto unless the following space is checked:

☒ was filed on July 11, 2006 as United States Application Serial Number 10/585,586.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 (including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application).

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	Number	Country	Day/Month/Year Filed
1.	PCT/KR2005/00133	PCT	14 January 2005
2.	10-2004-002981	Korea	15 January 2004

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

	Application Number	Filing Date
1.		

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

	Application Number	Filing Date
1.		

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Robert J. Irvine, III
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Jung Hee PARK
Inventor's signature: **Unreachable** Date: _____
Residence: San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467,860, Republic of Korea
Citizenship: Republic of Korea
Post Office Address: San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467,860, Republic of Korea

I, **Robert J. Irvine, III** hereby declare the following:

1. I am a citizen of the United States of America, residing at 719 Sigmund Road, Naperville, IL 60563.

2. I am authorized by the assignee, UTSTARCOM KOREA LIMITED, for whom I am an attorney, to sign this declaration on its behalf.

3. By virtue of this proprietary interest, I sign this declaration on behalf of and as agent for Jung Hee Park, the inventor who has refused to sign.

4. Upon information and belief, I aver the named inventor or inventors to be the original and first inventor(s) of the subject matter which is claimed and for which a patent is sought.

5. Upon information and believe, I aver those facts that the inventor is required to state.

Robert J. Irvine III

Date: June 15, 2007

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 05-500-B)

In re Application of:	)
	)
Jung Hee Park	) Examiner: TBA
	)
International Application No.: PCT/KR2005/00133	) Group Art Unit: TBA
U.S. Application No.: 10/585,586	)
	) Confirmation No. 4450
International Filing Date: January 14, 2005	)
U.S. Filing Date: July 11, 2006	)
	)
For: ATM Switched Router For Transmitting IP Packet Data	)

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT ESTABLISHING PROPRIETARY INTEREST BY PERSON SIGNING ON BEHALF OF NONSIGNING INVENTOR AND STATEMENT UNDER 37 C.F.R. § 3.73(B)

UTStarcom, Inc. has a sole proprietary interest in the present application. The invention was originally assigned by inventor to Hyundai Syscomm on November 30, 2002, as part of Hyundai Syscomm's employee invention compensation policy, and was filed as Korean National Application Number 2004-0002981 (Exhibit A). On April 27, 2004, UTStarcom, Inc., through its wholly owned subsidiary in Korea, UTStarcom Korea Limited, acquired Hyundai Syscomm's Intellectual Property Portfolio, including the rights to the above-referenced application, corresponding to Korean National Application Number 2004-0002981 (Exhibit B, page 46 of 46, entry number 1324). I establish this proprietary interest by attaching a copy of the assignment of this invention by the nonsigning inventor to Hyundai Syscomm, Inc. as recorded with the U.S. Patent and Trademark Office, and a copy of the

assignment of this invention by Hyundai Syscomm, Inc. to UTStarcom Korea Limited as recorded in the Patent and Trademark Office (Exhibit B). As such, UTStarcom, Inc. is presently the assignee and owner of the rights to the above-referenced application.

This STATEMENT ESTABLISHING PROPRIETARY INTEREST BY PERSON SIGNING ON BEHALF OF NONSIGNING INVENTOR is made by Robert J. Irvine, III, a person authorized to act on behalf assignee UTStarcom, Inc.

Respectfully submitted,

Date: June 15, 2007

Robert J. Irvine, III
Registration No.: 41,865
McDonnell Boehnen Hulbert & Berghoff LLP
300 South Wacker Drive, Ste. 3100
Chicago, Il 60606
Tel: 312 913 – 0001
Fax: 312 913 – 0002

EXHIBIT A

UNITED STATES PATENT AND TRADEMARK OFFICE

COPY

Facsimile Transmission

To:	Name:	MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
	Company:	300 S. WACKER DR., STE. 3100
	Fax Number:	13129130002
	Voice Phone:	
From:	Name:	ASSIGNMENT SERVICES BRANCH
	Voice Phone:	571-272-3350

37 C.F.R. 1.6 sets forth the types of correspondence that can be communicated to the Patent and Trademark Office via facsimile transmissions. Applicants are advised to use the certificate of facsimile transmission procedures when submitting a reply to a non-final or final Office action by facsimile (37 CFR 1.8(a)).

Fax Notes:

Pg#	Description
1	Cover Page
2	632.TXT
4	Document 1, Batch 956023

USPTO ASSIGNMENT SYSTEM PROCESSING

Date and time of transmission: Friday, June 15, 2007 2:17:08 PM
Number of pages including this cover sheet: 05

UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

JUNE 15, 2007

PTAS

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MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP
300 S. WACKER DR., STE. 3100
ROBERT J. IRVINE
CHICAGO, IL 60606

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 06/15/2007

REEL/FRAME: 019435/0752
NUMBER OF PAGES: 14

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 05-500-B

ASSIGNOR:
PARK, JUNG HEE

DOC DATE: 11/27/2002

ASSIGNEE:
HYUNDAI SYSCOMM, INC.
SAN 136-1, AMI-RI, BUBAL-EUB,
ICHEON-SI
GYEONGGI-DO, REPUBLIC OF KOREA

467-701

SERIAL NUMBER: 10585586
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

TITLE: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

06/15/2007
500296830

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Jung Hee Park	11/27/2002

RECEIVING PARTY DATA

Name:	Hyundai Syscomm, Inc.
Street Address:	San 136-1, Ami-ri, Bubal-eub, Icheon-si
City:	Gyeonggi-do
State/Country:	KOREA, REPUBLIC OF
Postal Code:	467-701

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	10585586

CORRESPONDENCE DATA

Fax Number: (312)913-0002
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 312-913-0001
Email: docketing@mbhb.com
Correspondent Name: McDonnell Boehnen Hulbert & Berghoff LLP
Address Line 1: 300 S. Wacker Dr., Ste. 3100
Address Line 2: Robert J. Irvine
Address Line 4: Chicago, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	05-500-B
NAME OF SUBMITTER:	Robert J. Irvine

Total Attachments: 12
source=05-500-B-Inv_to_Hyundai_Assignment#page1.tif
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HYUNDAI SYSCOMM

Confidential

Employee's Declaration of Invention

Date: November 30, 2002

Invention Team	Approval	Work Code		Approving Authority	On-the-job Maintenance Team	Reviewer	Patent Team	Approval	Work Code		Approving Authority
		Primary Inventor	Reviewer	Approved by					Drafter	Reviewer	Approved by
		Signed	-	*Signed*					*signed*	*signed*	*signed*
	Position / Name	SW/Jung Hee PARK		CJ/JEONG, S.H.		/		Position / Name	SW/LEE, Chun Mi	DL/YOON, Hyoung Jin	
	Date	Nov.27		Nov. 30	Control No.			Date			
	Years in Storage	0, 1, 2, 3, 5, 10, Permanent						Years in Storage	1, 3, 5, 10, P	Security Rating	1, 2, 3, Confidential

Under the provisions of the employee's invention compensation policy, I request to proceed with the filing/registration of my invention and to assign its rights for domestic and international registrations.

Statement by Inventor

Title of the Invention	Function to test IP packet transmission between HAMS-5 switched routers by means of ENLA and IFCA
Summary of the Invention	The present invention provides the following functions: 1. To test if data transmission/reception functions of ENLA and IFCA are normally operated between HAMS-5 switched routers; 2. To transmit IP packets when IFCA-ENLA and ENLA-IFCA links are set up between systems; and, 3. To transmit IP packets when ENLA-IFCA-SOLA and SOLA-IFCA-ENLA links are set up between systems.
Name(s) of Related Projects	Development of HAMS-5 switched router
Status of the Embodiment	☐ Conception ☒ Completed Design ☐ (In, Completed) Testing ☐ (Preparing, In) Business Implementation
Publication Status of the Invention	☒ Unpublished ☐ Expected to be Published ※ ☐ Published Earlier ※ ※ If checked, please specify the (scheduled) date of publication and related dissertations. [(Scheduled) Date of Publication: Related dissertations:]
Prior Art	Korean: Foreign:
Filing Term	☒ Standard ☐ Urgent → (Within days)
Reason for Urgent Filing	
Foreign Filing	☐ Yes (Reason:) ☒No
Key Word	

Statement by Patent Team

Date of Receipt	November 30, 2002	Agent	Phoenix patent office	Hyundai Syscomm Ref.	CM2002-12-0064
Korean Filing	☑ Patent ☐ Utility Model ☐ Journal of Technical Disclosure ☐ Withhold Filing (Reason:)				
	Request for Examination	☐Yes ☒ No	Strategic Patent Project for the Invention	23	
Foreign Filing	☐ Yes ☐ No		Filing Rating	B	
	Deliberation	☐ Yes ☐ No	*Remarks for Agents writing the specification*		

Designating Countries to File					
☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing				☐ Domestic filing without Review ☑ Domestic filing after Patent Team Review ☐ Simultaneous Korean & Foreign Filing	
1st Priority		5th Priority		Reviewer's Opinion	OK
2nd Priority		6th Priority			
3rd Priority		7th Priority			
4th Priority		8th Priority			
Note					

Statement by Manager of Invention Team

< Evaluation of the Invention>

Category	Contents	Evaluation Grade
Technology	Simple technology	☐ 1 point
	Slightly higher technology	☒ 3 point
	Advanced technology	☐ 5 point
Possible Implementation	Theoretically possible to implement, but has no plan for testing	☐ 1 point
	Developments in related technologies are required first for testing	☐ 2 point
	Currently testing or planning to test	☐ 3 point
	Tested and obtained satisfactory results (Attach Documents)	☐ 5 point
	Preparing or currently implementing into one's business	☒ 7 point
Effects	What is the level of improvement? (Simplification of processes, yield, cost etc.)	☐ 3 ☒ 2 ☐ 1 point
Importance	Defending the rights in disclosing the technology	☐ 1 point
	Adaptable (or scheduled) for mass production	☒ 3 point
	Absolutely necessary to obtain exclusive technology	☐ 5 point
Evaluation Result		(15)Point

Note: ※ The Invention Evaluation form must be filled out by the manager of the invention team.
※ Evidence is necessary for those inventions that are rated 5 or 7 points in the section of "Possibility for Implementation."
※ The Evaluation Result should be filled in only after completing the Evaluation.

<Evaluation for Foreign Filing>

Status of products to which the invention was applied	* Applied Product: * Related Technology: * Applied Period:	* For cases applied to multiple products, list all product names. For future cases to be applied, mark the estimated period.
Evaluation	☐ Absolutely necessary ☐ Observe for a year after filing domestically ☐ Not necessary	Designation of Countries 1st Priority 2nd Priority 3rd Priority
	☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing	4th Priority 5th Priority
	Technological Factor	6th Priority 7th Priority 8th Priority
	Economical Factor	Evaluator Name: Position: Signature:

Inventor Information									
Primary Inventor	Name	(Korean) 박 정 희	(S/W) Development Group (Network) Team						
		(Chinese) 朴 正 禧	Position	SW	Employee ID No.	H26771	Tel (8040)		
		(English) Park Jung Hee	Residence ID		740320-1222320				
	E-mail	mirine@hysyscomm.com	Address	San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-701			Signature	*signed*	
Joint Inventor	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID		-				%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		

Note: 1. The full address and e-mail address are required.
2. Write the full name in English.

社 外 秘

직무 발명 신고서

신고일:2002년 11월 30일

발명실 결재	업무코드		승인권자	현장관리자 검토		법제특허부 결재	업무코드		승인권자
	주발명자	검토	팀장				기안	검토	승인
직위/성명	사원/박정희	/	차장/정성현		/	직위/성명			
일 자	11/30	/	11/30	관리번호		일 자			
보존년한	0.1.2.3.5.10.영구					보존년한	1.3.5.10.영구	보안등급	1.2.3 대외비

사내 직무발명보상기준에 의거하여 출원/등록을 의뢰하며,국내/외 등록권리를 양도합니다.

발명자 기재사항

발명의 명칭	HAMS-5 switched Router 간에 ENLA, IFCA를 통한 IP Packet 전송 시험 기능
발명의 개요	1. HAMS-5 switched router를 통한 ENLA,IFCA간 데이터 전송,수신 기능이 정상적으로 수행되는지의 기능. 2. 시스템간 IFCA-ENLA <-> ENLA-IFCA 연결시 IP Packet 전송기능. 3. 시스템간 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 연결시 IP Packet 전송기능.
관련PROJECT명	HAMS-5 switched router 개발
실 시 상 황	□ 착상 ■ 설계완료 □ 시험(중,완료) □ 사업화(준비중,실시중)
본발명의 발표상황	■ 미발표 □ 발표예정 □ 旣발표 ※旣발표 또는 발표 예정인 경우 발표(예정)일과 관련논문등 기입 요망 [발표(예정)일:2000년 월 일. 관련논문:]
선행특허자료	국 내 / 외 국
출원완급	■ 보 통 / □ 지 급-->(___일이내) — 지급출원 이 유:
외국출원	□ 유 (이유:) ■ 무
KEY WORD	

법제특허부 기재사항

접 수 일	2002년11월30일	대리인	제시스	전담자관리번호 CM2002-12-0064
국내출원	☑ 특허 □ 실용 □ 공개기보 □ 출원보류(이유:)			
	심사청구	□ 유 ☑ 무	전략특허PROJECT명	23
외국출원	□ 유 □ 무		출원등급	B
	심의여부	□ 유 □ 무	*대리인 특허명세서작성 참조사항*	

출원국가선정				
□ 개별국출원 □ EPO출원 □ PCT출원				□ 사우소 자체 국내출원 ☑ 특허팀검토후 국내출원 □ 국내외 동시출원
1순위		5순위		검토의견: OK
2순위		6순위		
3순위		7순위		
4순위		8순위		
비고				

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발명실장 기재사항

< 발명 평가내용 >

구 분	내 용	평가점수
기 술 성	단순 조합 기술임	☐ 1점
	약간 높은 수준을 요하는 기술임	☑ 3점
	고도의 수준을 요하는 기술임	☐ 5점
실현가능성	이론상 실현은 가능하나, 실험계획은 없슴	☐ 1점
	테스트 하려면 관련기술의 발전이 요구됨	☐ 2점
	테스트중이거나 예정임	☐ 3점
	양호한 테스트 결과 얻음(자료첨부 가능)	☐ 5점
	현재 사업화 준비중 또는 실시중임	☑ 7점
효 과	개선된 효과의 수준은? (공정 단순화, Yield, Cost 등의 측면)	☐ 3점 ☑ 2점 ☐ 1점
발명중요도	기술공개로 타사 권리확보를 방어하는 수준임	☐ 1점
	양산에 적용(예정) 가능한 발명임	☑ 3점
	반드시 필요한 독점 기술임	☐ 5점
평가결과		(15) 점

주)※상기 발명 평가표는 반드시 실장이 직접 기재하시기 바랍니다.
※"실현가능성"란에서 5점,7점에 해당된 발명은 증빙 자료가 반드시 필요 합니다.
※평가를 완료하신후 평가결과를 기입 바랍니다.

< 외국출원 평가내용 >

발명의 적용제품 현 황	*적용제품: *관련기술: *적용시기:	*복수제품에 적용되는 경우 전부 기재하시기 바라며, 향후 적용 제품경우 예상시점을 기재요망
평가내용	☐ 절대 필요 ☐ 국내출원후 1년간 관망 ☐ 필요 없음	출원희망국가
	☐ 개별국출원, ☐ EPO출원, ☐ PCT출원	1순위 / 2순위 / 3순위 / 4순위 / 5순위 / 6순위 / 7순위 / 8순위
	기술적측면	
	경제적측면	평가자 성명: 직위: 서명:

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발명자 인적사항								
	발명자 1	성명	(한글) 박 정희	(Soft Ware) 개발 Group (네트웍 개발)실				
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			(영문) Park Jung Hee	주민등록No	740320-1222320			
		E-mail	mirine@hysyscomm.com	주소	(467-701) 경기도 이천시 부발읍 아미리 산 136-1		서 명	
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			(영문)	주민등록No	-			
		E-mail		주소	(-)		서 명	
	발명자 3	성명	(한글)	( ) 개발 Group ( )실				
			(한문)	직위		사번		TEL ( )
			(영문)	주민등록No	-			
		E-mail		주소	(-)		서 명	
	발명자 4	성명	(한글)	( ) 개발 Group ( )실				
			(한문)	직위		사번		TEL ( )
			(영문)	주민등록No	-			
		E-mail		주소	(-)		서 명	
	발명자 5	성명	(한글)	( ) 개발 Group ( )실				
			(한문)	직위		사번		TEL ( )
			(영문)	주민등록No	-			
		E-mail		주소	(-)		서 명	
	발명자 6	성명	(한글)	( ) 개발 Group ( )실				
			(한문)	직위		사번		TEL ( )
			(영문)	주민등록No	-			
		E-mail		주소	(-)		서 명	

㈜1. 주소는 상세히 기재하시고, E-mail은 반드시 *회사계정*으로 기재하시기 바람.
2. 영문기재시 Fullname을 기재하시기 바람.

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발명의 명세서

1.발명의 명칭

발명의 실질적 내용에 대해 가장 적절히 표현할수 있는 명칭을 간결하고 명확하게 기재하되 약자는 가급적 피해주시기 바람.

HAMS-5 switched router의 IFCA(Ip Forwarding Control Board Assembly)-ENLA(Ethernet Link Board Assembly) <-> ENLAEthernet Link Board Assembly)-IFCA(Ip Forwarding Control Board Assembly) 를 통한 IFCA의 ROUTE기능과 ENLA의 Ehternet switching기능에 의한 IP 서비스

2.발명의 상세한 설명

1)산업상의 이용분야

발명이 무엇에 관한 것이며,어느 기술분야에 적용되는지를 기재하고,타 기술 분야에서도 활용이 가능하면 그 기술분야도 기재하시기 바람.

1. 위 발명은 IP 서비스 기능을 이용한 HAMS-5간의 각 node들 간에 Ehternet 서비스를 수행.
2. HAMS-5기능들중에 Ethernet서비스를 할 수 있도록 Router사이에 Ethernet관련 서비스에 적용된다.
3. Router끼리 Ethernet으로 Path를 설정하지 않고 Atm으로 Path를 연결하여 보다 빠르고 다양한 서비스 제공이 가능하다.

2)종래기술의 설명 및 그 문제점

*본 발명이 속하는 기술분야에서 본 발명과 연관되는 종래기술이 어떻게 실시되는지 기술적 구성이나 개요를 비교적 상세히 설명하고,그 문제를 기재하기 바람.
*본 발명과 관련된 참고문헌이나 특허공보가 있으면 문헌명이나 공보번호를 기재하고, 그 자료를 본 명세서에 첨부하시기 바람.

종래의 기술은 ENLA 자체, 또는 IFCA 자체에 대해 기능 시험을 하는 단계였다.
자체 기능도 되지 않는 상황이었고 이와 같은 경우에 ENLA 자체내부 디바이스,
IFCA 내부 디바이스에 대한 검증만 수행한다.
이로 인해 ENLA, IFCA간에 연결되는 경로는 검증하지 못하는 제한이 있다. 그리고 실질적인 Ethernet 서비스 기능을 시험하지 못하는 제약이 있다.

3)종래 문제점을 해결하기 위한 본 발명의 기술적 원리

*본 발명에서 상기와 같은 기술적 문제점을 어떻게 해결하고 있는지 그 해결책의 요지만을 기재하고, 그 상세한 설명은 다음항에 기재하기 바람.
*어떤 효과를 지닌 어떤기술을 사용하여 어떤 문제점을 해결하였다는 등

1. 종래의 기술적 문제를 해결하기 위해 ENLA, IFCA간의 Atm Path 시험 경로를 구성.
2. IFCA, SOLA간의 Atm Path 시험 경로 구성.
3. MP(Main Processor)에서 네트웍에 대한 정보를 설정하여 IFCA에게 네트웍 정보를 설정.
4. ENLA에서 관리 하는 각 Node들의 Mac_Address를 Table로 유지하여 Mac_Switching 기능이 되도록 설정.
5. IFCA에서는 ENLA, SOLA와 Atm-Path 연결 설정을 수행하고 네트웍 정보를 구성.
6. IFCA 의 Default Routing table을 Sola로 정하여 ATM Path를 통하여 다른 Router로 데이타를 보낼수 있도록 한다.
   이를 통해 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 에 이르는 경로에 대한 데이터 전송 기능 수행을 수행한다.

4)본 발명의 구성 및 그 전반적인 동작설명

*본 발명은 본 발명이 속하는 기술분야 또는 연관된 기술분야에 종사하는 기술자라면 누구라도 실시할수 있을 정도로 상세하고도 정확한 표현으로 기재하시기 바람.

1. IFCA(Ip Forwarding Control Board Assembly)
   1.1 메인 프로세서(MP)에서 Router간에 Routing정보를 주고 받을 수 있는 Path를 ENLA 가상의 네크웍 정보를 IFCA에 설정.
   1.2 ENLA Port에 연결되는 각 Node들의 GateWay를 설정.
   1.3 IFCA가 네트웍 정보를 받아 IP Routing할수 있는 서비스 준비를 하고 ENLA Port에 연결되는 각 Node들의 GateWay를 설정한다.

2. ENLA(Ethernet Link Board Assembly)
   2.1 ENLA에서는 각 node들로부터 전달되는 Source Mac_Address를 table로 관리한다.
   2.2 ENLA에서 관리하는 Mac_Address table은 timer를 두고 들어 오지 않는 node에 대해서는 Table에서 삭제한다.
   2.3 ENLA에서는 IFCA가 보내주는 Packet의 Destination Mac_Address를 보고 어느 Port로 보낼지 판단하여 해당 Mac_Address가 등록된 Port로 Packet을 보낸다.

3. 기본적인 동작 예.
   IFCA, ENLA의 기본적인 setting이 끝났을때
   3.1 어느 Node에서 다른 Router의 다른 network를 가진 Node와 통신하고자 한다.
   3.2 처음에 Node에서 연결하고자 하는 Node에게 Packet을 던진다.
   3.3 이 Packet은 Enla를 타고 Atm-Switch를 타고 IFCA로 들어 간다.
   3.4 IFCA는 가지고 있는 Routing table을 참조 하여 어디로 보낼지를 결정한다.
   3.5 IFCA가 다시 ENLA로 보낸 Packet은 다른쪽 Router의 ENLA로 들어 간다.
   3.6 Atm-Switch를 거쳐 다시 IFCA로 Packet이 전달되고 IFCA에서는 어디로 보낼지 결정한다.
   3.7 Packet은 IFCA에서 ENLA로 보내게 된다.
   3.8 ENLA에는 Packet에 있는 destination mac_address를 보고 Mac_Address Table에서 해당 mac_address를 검색한다.
   3.9 찾은 mac_address에 해당하는 Port로 Packet을 보내게 된다.

4) 항에서 계속

4. Router 간에 Atm Path를 통한 Ethernet 서비스.

4.1 LAN Cable을 이용하여 ENLA끼리 연결하는 것이 아니다.
4.2 IFCA에서 Atm Path를 Sola와 연결하여 Router간에는 Sola와 Sola로 Atm Path로 연결을 하게된다.
4.3 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA
4.4 초기 보드들이 Setup이 이루어 질때 ENLA, IFCA, SOLA사이의 Atm Path는 default로 잡히게 설정.

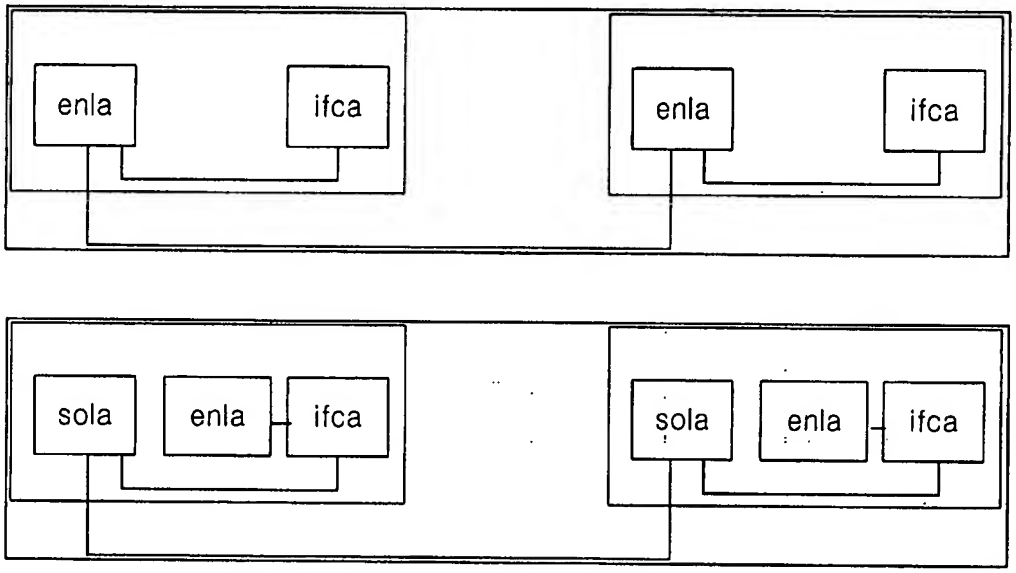
5. Router간에 Lan-cable연결과 Sola를 통한 Atm Path의 차이.
5.1 Sola를 통한 Atm Path가 Lan-cable을 통한 연결보다 속도가 빠르다.
5.2 5.3에서 나타낸것을 보면 별차이는 없어 보인다. 하지만 ENLA를 거치지 않고 직접 SOLA를 거쳐 IFCA로 가면 중간에 delay를 줄일 수 있다.
5.3
5.2.1 Lan-cable을 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->ENLA<->ENLA<->IFCA<->ENLA<->Node
5.2.2 Atm Path를 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->SOLA<->SOLA<->IFCA<->ENLA<->Node

6.
6.1 ENLA에서 4Port를 하나의 네트웍으로 구성할 수 있다.
6.2 ENLA에서 2Port씩 두개의 서브 네트웍으로 구성할 수 있다.

5)본 발명의 다른 실시예

4)항에 기재된 본 발명의 주요 실시예 이외에 다른 실시예가 있으면 도면을 도시하고, 그 내용을 실시할 수 있을 정도로 구체화 하여 기재.

1. Router간에 Lan cable을 사용하지 않고 Atm Path를 통한 연결을 설정한다.
   이렇게 하면 좀 더 속도면에서 향상시킬수 있다.
2. Router간 Atm-Path 연결.



6)본 발명의 효과

본 발명과 종래기술과의 구성 및 동작의 차이에서 오는 효과를 구체적으로 기재하고,부수적으로 발생되는 이점도 기재하나,단 기술적인 근거가 없는 막연한 경제적 효과 등은 기재 불필요.

1.1 ENLA는 Mac_Switching관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.2 IFCA는 Routing관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.3 SOLA를 통한 Atm-Path의 연결에 의한 Atm Switched Router간의 Lan-cable연결에 비해 빠른 전송서브시를 제공할수 있다.

3.발명의 권리보호 범위

본 항은 발명의 명세서에 기재된 내용중 권리로서 보호 받고자 하는 사항을 기재하되, 본 발명에 의해 새롭게 창작된 구성 혹은 기능만을 기재함.특히,그중 보호를 받아야할 부분이나, 또 다른 실시예가 있는 경우 이를 다른 항으로 명확하고,간결하게 기재하시기 바람.

1. ENLA, SWITCH, IFCA, SOLA 간 데이터 전송을 위한 경로 설정 및 경로 설정 해제 기능

2. 운용자가 원하는 네트웍정보를 입력 받아 라인카드 초기 Setup시 네트웍정보를 받아 네트웍을 구성하는 기능.

3. 네트웍 구성시 서브네트웍을 1개 또는 2개로 구성할수 있는 기능.

4. 같은 서브네트웍인 경우 IFCA까지 가지 않고 바로 Mac_Switching할수 있는 기능.

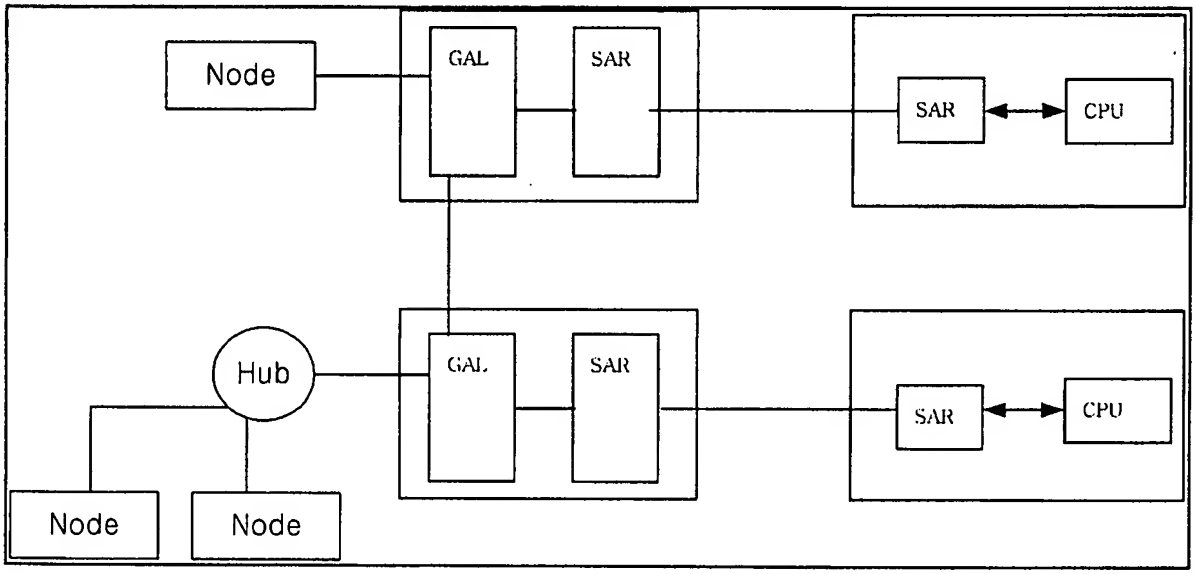
4. 도면의 간단한 설명

※도면의 도시된 내용에 따라 발명자가 의도했던 내용이 변할수 있으므로 본 발명서에 필요한 도면을 정확하게 표시하여,명세서 뒤에 반드시 첨부하시기 바람.
※ ①전자전기회로 관련 출원은 회로도,블록도,FLOW CHART,특성그래프 등이 첨부되어야함.
②기계관련 출원은 전체 구조도,상세 구조도,투시도 등이 첨부되어야 하며,
③공정관련 출원은 전체공정 계통도와 상세공정도 및 특성그래프 등이 첨부되어야 함.
※본 항에 예를들에 "제1도는 XXX 회로도,제2도는 ...소자의 단면도… ,"와 같이 기재바람.
※도면의 필요한 부분에 대해서는 그 명칭을 본 항 하단부 아래에 기재하시기 바람.
(<예>1:제어부 2:감지부)

1. 밑에 있는 도식은 Router간에 ENLA 보드사이에 Lan cable을 이용하여 Router를 연결하여 운용.

2.

Node -> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
<- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-
-> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
Node <- Hub <- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Attorney Docket No. 05-500-B

In re Application of:	)	
	)	
Jung Hee PARK	)	**Examiner:** TBA
	)	
International Application No.: PCT/KR05/00133	)	**Group Art Unit:** TBA
U.S. Application No.: 10/585,586	)	
	)	**Confirmation No.:** 4450
International Filing Date: January 14, 2005	)	
U.S. Filing Date: July 11, 2006	)	
	)	
For: ATM Switched Router For Transmitting IP Packet Data	)	

Mail Stop PCT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION IN SUPPORT OF PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR WHO WE HAVE BEEN UNABLE TO LOCATE

Dear Sir:

This Declaration is in support of Petition under 37 C.F.R. § 1.47(b) to allow UTStarcom, Inc. to make the application on behalf of inventor Jung Hee PARK, who we have been unable to locate.

1. I, **Jiwon LIM**, am a paralegal at the law firm Kim & Chang.

2. I have first-hand knowledge of the facts recited herein.

3. This Declaration is in support of U.S. Patent Application entitled "ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA," filed in the U.S. Patent Office on July 11, 2006 and bearing U.S. Application No. 10/585,586 and International Application No. PCT/KR2005/00133.

4. I am a paralegal at the law firm Kim & Chang, located at Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea.

5. Kim & Chang represents UTStarcom Korea Limited, a subsidiary of UTStarcom, Inc.

6. I am a citizen of Korea, residing at 840-7 Mia-dong, Gangbuk-gu, Seoul 142-820, Republic of Korea.

7. On December 1, 2006 I sent a letter, via content-certified mail, including assignment documents and the Inventor's Declaration of Invention, to Mr. Jung Hee PARK's last known physical address (San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea). (See attached Exhibit 1).

8. On December 5, 2006, the content-certified package mailed to Mr. PARK was returned because the address was incorrect. (See attached Exhibit 2). I did not attempt to personally visit Mr. PARK's address, as it is the company address of Hyundai Syscomm, Inc.

9. On February 28, 2007, I searched for an e-mail address using the inventor's name and residence identification number in well-known Korean webmail services as well as personal homepage service www.cyworld.co.kr. In order to register for an e-mail address, most of these services require a user to enter his or her full name and residence identification number. These searches resulted in only one complete e-mail address associated with Mr. PARK's residence identification number. (See attached Exhibit 3).

10. On February 28, 2007, I sent an e-mail, attaching all U.S. application materials (specification, claims, and drawings) to Mr. PARK's email address, goinha@hanmail.net. (See attached Exhibit 4). I did not receive a response to this e-mail.

11. I attempted to find Mr. PARK's phone number using Korea Information Services (KOIS). The Korea Information Service Corporation (KOIS) is essentially the Korean version of "411" and other directory assistance services. An

English version of the website that describes the services that KOIS provides can be found at www.ekois.co/kr/new/eng/main/index.php. (See also attached Exhibit 5). KOIS is the largest and most comprehensive directory service in Korea. KOIS maintains a large database that is searchable for the contact information of listed people and companies. However, much like "411", written confirmation of results is not provided by KOIS, as it is a telephonic service. Korea Information Services confirmed that no number was registered under Mr. PARK's name and his last known address. All efforts to obtain a current address, phone number, or email address, using KOIS have failed to provide new information concerning the whereabouts of Mr. PARK.

12. On May 17, 2007, I sent a reminder e-mail to Mr. PARK, and also offered U.S. $250.00 as compensation for his cooperation in prosecuting this application. (See attached Exhibit 6). I did not receive a response to this e-mail.

13. I believe that I have exhausted all means of contacting Mr. PARK.

14. I hereby declare that all statements made herein are of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made under penalty of perjury and that such willful false statements may jeopardize the validity of the specification or any patent issued thereon.

Respectfully submitted,

Date: June 14.2007

By: Jiwon Lim

Jiwon LIM
Kim & Chang
Hungkuk Life Insurance Building, 9F,
226 Sinmunno 1-ga, Jongno-gu,
Seoul 110-786, Korea

MEMORANDUM OF LAW IN SUPPORT OF PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR

This memorandum of law is in support of Petition under 37 C.F.R. § 1.47(b) to allow UTStarcom, Inc. ("UTStarcom") to make the application on behalf of a non-signing inventor.

BACKGROUND

UTStarcom submitted a Petition under 37 C.F.R. § 1.47(b) to allow UTStarcom to make the Application on behalf of the inventor listed in Schedule A, whom UTStarcom has been unable to locate. The Petition was denied on the grounds that UTStarcom allegedly failed to establish a proprietary interest in the above-referenced U.S. Application.

STATEMENT OF FACTS

All facts in support of the argument and conclusion are set forth in the Declaration of Joo-Young Kim under M.P.E.P. 409.03(f).

ARGUMENT AND CONCLUSION

UTStarcom should be awarded title to the above-referenced U.S. Application because UTStarcom, as the assignee of patent rights to the underlying Korean Application and subsequent patent applications granted by the assignor Hyundai Syscomm Inc. ("Hyundai Syscomm"), is the sole proprietary owner of the U.S. Application.

Under Korean Patent Law, UTStarcom is recognized as the owner of the Korean Application. First, the Korean Intellectual Property Office recognizes UTStarcom as the current owner of the Korean Application as a matter of record. Second, the invention disclosure form executed by the inventor in favor of Hyundai Syscomm, which includes an assignment of the subject matter of the Korean Application from the inventor to Hyundai Syscomm, is more than sufficient to overcome any challenge to UTStarcom's ownership interest.

The Korean Patent Act provides that a patent application of an employee may be filed directly by the employee's company, without an explicit assignment from the employee to the employee's company. Korean Patent Act, Article 42. Unless the examiner or a third party contests the company's right to file the application, the company becomes the owner of the application for all intents and purposes. Thus, even in the absence of an employee-inventor assignment, a Korean Patent Application filed by a company without contest by others is the proprietary owner of the patent rights. See Korean Patent Act, Article 42, Para 1.

In the instant case, Hyundai Syscomm filed the Korean National Application , listed in Schedule A, as the named applicant. The filing of the application was not contested by the Examiner or any third party. Thus, under Korean Law, Hyundai Syscomm became the owner of the Korean application even in the absence of an employee inventor assignment. Subsequently, the Hyundai Syscomm's patent portfolio, including the above-mentioned Korean Application, was assigned to UTStarcom. This assignment was recorded with the Korean Intellectual Property Office, without objection, making UTStarcom the legal owner of the above-mentioned Korean Application.

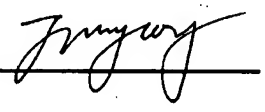
Under the present circumstances, only the inventor(s) may challenge the legitimacy of Hyundai Syscomm's ownership of the

Korean Application. Korean Patent Act, Articles 34 and 35. However, any challenge by the inventor(s) would fail under Korean Patent Law. The inventor(s) executed an invention disclosure form, which assigns the subject matter of the Korean Application to Hyundai Syscomm. Because the subject matter described in the invention disclosure form is virtually identical to the subject matter contained in the Korean Application, the assignment therein would be deemed by a Korean court of law to assign the Korean Application to Hyundai Syscomm. See In-Chul Choi v. Samsung Electonics Co., Ltd., 2001 Gahap 13977 (Seoul District Court, August 22, 2002) (recognizing the validity of the assignment based on the content in the invention disclosure form despite the absence of a specific application number reference). Thus, even if challenged, the chain of title of the Korean Application would be sustained under Korean Patent Law and UTStarcom would remain the ultimate owner.

This ownership of the Korean Application, in conjunction with the other assignment terms of the acquisition agreement previously submitted, establishes UTStarcom's rights to the subsequent PCT application and U.S. national phase application. Thus, UTStarcom has a proprietary interest in the referenced U.S. Application (listed in Schedule A), and should be allowed to make the application in U.S. on behalf of the missing inventor under 37 C.F.R. § 1.47(b).

Respectfully submitted

Date: June 11, 2007

By: 

Joo-Young Kim
Kim & Chang
Hungkuk Life Insurance Building, 9F,
226 Sinmunno 1-ga, Jongno-gu,
Seoul 110-786, Korea

DECLARATION IN SUPPORT OF PETITION UNDER 37 C.F.R. § 1.47(b) BY PERSON HAVING PROPRIETARY INTEREST TO FILE APPLICATION ON BEHALF OF INVENTOR

Dear Sir:

This Declaration is in support of Petition under 37 C.F.R. § 1.47(b) to allow UTStarcom, Inc. to make the application on behalf of the non-signing inventor(s) listed in **Schedule A**, column 3, whom we have been unable to locate.

1. I, **Joo-Young Kim**, am a citizen of Korea, residing at Sangyong, Apt No. 103-1101, Sungsu-dong 1-ga 16/3, Sungdong-gu, Seoul, Republic of Korea.

2. I am a Korean patent attorney with the law firm of Kim & Chang, located at Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea.

3. On behalf of Kim & Chang, I am representing UTStarcom Korea Limited, a wholly owned subsidiary of UTStarcom, Inc.

4. I am knowledgeable regarding Korean Patent Law.

5. I submit this declaration in support of the accompanying memorandum of law.

6. The Korean company Hyundai Syscomm filed the Korean National Application listed in **Schedule A, Column 6** as the applicant of record, with inventor(s) in **Schedule A, column 3** listed as the inventor(s).

7. The filing of the above-referenced Korean Application by Hyundai Syscomm was not opposed by the Examiner or any third party including the employee/inventor.

8. On April 27, 2004, UTStarcom, Inc., through its wholly owned subsidiary UTStarcom Korea Limited, acquired Hyundai Syscomm's Intellectual Property Portfolio, including the rights to the Korean National Application listed in **Schedule A, column 6**, and duly recorded this change of ownership with the Korean Intellectual Property Office without objection.

9. As a result of the acquisition, UTStarcom, Inc. became the sole proprietary owner of Hyundai Syscomm's Intellectual Property Portfolio, which includes the above-referenced Korean National Application.

10. UTStarcom Korea Limited filed the PCT application listed in **Schedule A, column 8**, claiming priority to the above-referenced Korean National Application.

11. The above-referenced PCT application entered U.S. National phase in the United States on the date listed in **Schedule A, column 5**, having the U.S. Application Serial Number listed in **Schedule A, column 4.**

12. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the

United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

Date: 16-January-2007 By: Joo-Young Kim

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226 Sinmunno 1-ga, Jongno-gu,
Seoul 110-786, Korea

Exhibit 1

[KOREAN PATENT ACT]	[TRANSLATION]
제 34 조 (무권리자의 특허출원과 정당한 권리자의 보호) 발명자가 아닌 자로서 특허를 받을 수 있는 권리의 승계인이 아닌 자(이하 "무권리자"라 한다)가 한 특허출원이 제 33 조제 1 항 본문의 규정에 의한 특허를 받을 수 있는 권리를 가지지 아니한 사유로 제 62 조 제 2 호에 해당되어 특허를 받지 못하게 된 경우에는 그 무권리자의 특허출원후에 한 정당한 권리자의 특허출원은 무권리자가 특허출원한 때에 특허출원한 것으로 본다. 다만, 무권리자가 특허를 받지 못하게 된 날부터 30 일을 경과한 후에 출원을 한 경우에는 그러하지 아니하다.	**Article 34 (Patent Application Filed by an Unentitled Person and Protection of the Lawful Holder of a Right)** Where a patent cannot be granted because an application was filed by a person who is not the inventor or a successor to the right to obtain a patent (referred to as "an unentitled person") under Article 33(1) as prescribed in Article 62(ii), a subsequent application filed by the lawful holder of the right is deemed to have been filed on the filing date of the earlier application filed by the unentitled person. This provision does not apply, however, if the subsequent application is filed by the lawful holder of the right more than thirty days after the date on which the application filed by the unentitled person was rejected.
제 35 조 (무권리자의 특허와 정당한 권리자의 보호) 제 33 조제 1 항 본문의 규정에 의한 특허를 받을 수 있는 권리를 가지지 아니한 사유로 제 69 조 제 1 항 제 2 호에 해당되어 특허취소결정이 확정된 경우 또는 제 33 조 제 1 항 본문의 규정에 의한 특허를 받을 수 있는 권리를 가지지 아니한 사유로 제 133 조 제 1 항 제 2 호에 해당되어 특허를 무효로 한다는 심결이 확정된 경우에는 그 특허출원후에 한 정당한 권리자의 특허출원은 취소 또는 무효로 된 그 특허의 출원시에 특허출원한 것으로 본다. 다만, 그 특허의 등록공고가 있는 날부터 2 년을 경과한 후에 특허출원을 하거나 취소결정 또는 심결이 확정된 날부터 30 일을 경과한 후에 특허출원을 한 경우에는 그러하지 아니하다.	**Article 35 (Patent Granted to an Unentitled Person and Protection of the Lawful Holder of a Right)** Where a decision to revoke a patent becomes final for lack of entitlement to obtain a patent under Article 33(1) as prescribed in Article 69(1)(ii) or a decision to invalidate becomes final due to a lack of entitlement under Article 33(1) as prescribed in Article 133(1)(ii), a subsequent application filed by the lawful holder of the right is deemed to have been filed on the filing date of the revoked or invalidated application. However, this provision does not apply if the subsequent application is filed more than two years after the publication date of the first application or more than thirty days after the decision to revoke or invalidate becomes final.

[KOREAN PATENT ACT]	[TRANSLATION]
제 42 조 (특허출원) ①특허를 받고자 하는 자는 다음 각호의 사항을 기재한 특허출원서를 특허청장에게 제출하여야 한다. 1. 특허출원인의 성명 및 주소(법인인 경우에는 그 명칭 및 영업소의 소재지) 2. 특허출원인의 대리인이 있는 경우에는 그 대리인의 성명 및 주소나 영업소의 소재지(대리인이 특허법인인 경우에는 그 명칭, 사무소의 소재지 및 지정된 변리사의 성명) 3. 삭제 4. 발명의 명칭 5. 발명자의 성명 및 주소 6. 삭제	**Article 42 (Patent Application)** (1) A person seeking to register a patent shall file a patent application with the Commissioner of the Korean Intellectual Property Office, stating the following: (i) the name and address of the applicant (and, if a legal entity, the name and address of the business); (ii) the name and residential or business address of the agent, if any (and, if the agent is a patent legal entity, the name and address of the business and the name of the designated patent attorney); (iii) deleted; (iv) the title of the invention; (v) the name and address of the inventor; (vi) deleted.

Exhibit 2

[Translation]

Seoul Southern District Court

Judgment

Case No.	2001 Gahap 13977
Plaintiff:	In Chul Choi
Defendant:	Samsung Electronics Ltd.
Pronouncement:	August 22, 2002

ORDER

The confirmation claim of the present action is dismissed.

Tenor of Complaint

Plaintiff hereby seeks confirmation that the patented inventions, described in the patent right list of the accompanying sheet, do not belong to an in-service invention.

GROUNDS

1. Findings of Facts

A. The Defendant's company, taking fabrication, sale, etc. of communication mechanisms and related devices as its objective under its constitution, has manufactured mobile-phone terminals since May of 1989. The Plaintiff entered the Defendant's company on January 10, 1989, and had served as a member of a team known as the "Time Machine Team (TMT)" between July 13, 1992 and February 16, 1995.

B. TMT of the Defendant's company is a department that was organized by selecting incumbent staff to create ideas for new product development. TMT holds a weekly evaluation meeting, where team members exchange ideas equipped with marketability and practicability, and hold quarterly meetings that report the results to the board of directors, assigning no specific tasks to its team members. The Plaintiff was mainly focused on conceiving and commercializing a new Hangul inputting method, submitting a report titled "Value of Text in the Multimedia World" showing the needs and practicability

of a new Hangul inputting method on May 20, 1994, and a report titled "First report regarding commercialization drive of a new Hangul inputting method" on July 18, 1994, together with his teammate, Dong Ki Rui.

C. During his tenure on TMT, the Plaintiff invented "Method and Apparatus for Generating Text Inputting Codes (hereinafter, referred to as the 'first invention')," described in patent right list 1 of the accompanying sheet, and transferred the right to obtain a patent for the Defendant's company while providing an in-service invention report on the first invention on February 19, 1993. The Defendant's company filed a patent application for the first invention in its name on July 6, 1993, and completed the patent registration on March 13, 1996.

D. Furthermore, the Plaintiff, together with his teammate, Dong Ki Rui, invented "Method and Apparatus for Generating Text Inputting Codes (hereinafter, referred to as the 'second invention')" described in patent right list 2, and transferred the right to obtain a patent for the Defendant's company while providing an in-service invention report on the second invention on October 13, 1994. The Defendant's company filed a patent application for the second invention in its name on May 11, 1995, and completed the patent registration on August 10, 1998.

E. The Defendant's company has manufactured and sold mobile-phone terminals using the text inputting methods of the inventions since November of 1998.

2. The Plaintiff's Claims and Holding thereon

A. Gist of the Plaintiff's Claims

The Plaintiff seeks: (a) confirmation that the fist and second inventions are not an in-service invention, arguing that the inventions were misconceived as an in-service invention and filed in the name of the Defendant's company although they actually belong to a liberal invention; and (b) the Defendant's return of 1 billion KrW as part of an unjust enrichment, arguing that since the contracts of transfer were based on a misconception for

the inventions to be an in-service invention are invalid, the Defendant is not a legitimate patentee and has an obligation to return, to the Plaintiff, the profits earned by practicing the inventions as an unjust enrichment.

B. Relevancy of the Confirmation Claim

The Defendant made a defense prior to a main hearing that the Plaintiff's confirmation claim lacks eligibility and thus is irrelevant because it seeks confirmation of a factual matter. The Plaintiff seeks the confirmation for the first and second inventions to not be an in-service invention as a basis for the unjust enrichment return claim being sought by the present action. This is to confirm part of a legal requirement fact, and thus is irrelevant. Furthermore, the confirmation stake of a confirmation action can be recognized if the obtainment of a confirmation judgment is the most effective and appropriate means for eliminating the challenge and risk when the plaintiff's legal status is challenged and risked. However, as will be seen in item C. (1), even though the first and second inventions were not an in-service invention, this would not affect the patent right registered in the name of the Defendant's company, unless the invalidation decision is rendered and becomes final and conclusive in a patent registration invalidation trial. Therefore, because seeking the confirmation for the inventions to not be an in-service invention cannot be seen as an effective and appropriate means, the Plaintiff's confirmation claim of the present action is irrelevant.

C. Unjust Enrichment Return Claim

(1) The Plaintiff argues first, that since the first and second inventions are not an in-service invention but a liberal one, each contract for transferring each right to obtain a patent to the Defendant is invalid per se for primitive impossibility of the objective of a legal activity or under Article 39, Paragraph 1 of the Patent Act, or invalid for violating Article 103 of the Civil Code.

In regard to this, if the first and second inventions belong to a liberal invention, Article 39, Paragraph 1 of the Patent Act stipulates that an invention constitutes an in-service invention if the invention was made by an employee, etc. in connection with his/her service and falls by nature within the business

range of the employer, etc., and the activity resulting into the invention was part of the present or past duties of the employee, etc.

As previously seen, the Defendant's company takes the fabrication and sale of communication mechanisms as one of its founding objectives, and has set the mobile-phone terminal as one of the primary manufactured items from the year of 1989 through to the present time. Since the inventions are directed to a text inputting method usable for mobile-phone terminals, these are regarded to fall within the business range of the Defendant's company. Furthermore, the Plaintiff's then duty was to create ideas for new products development in the field of the information and telecommunication at the time of conceiving each invention, and the Plaintiff reached the first and second inventions substantially as a result of focusing mainly on collecting ideas for a Hangul inputting method. As such, each invention is determined to fall within the Plaintiff's duty.

Therefore, since the first and second inventions should belong to an in-service invention, the Plaintiff's arguments contend the validity of each transfer contact on premise of the opposite.

(2) The Plaintiff also argues that since the patent application for the second invention was filed four months after the Defendant's company succeeded to the right to the invention from the Plaintiff, the second invention should be regarded as a liberal invention under Article 11, Paragraph 1 of the Invention Promotion Act, and the Defendant should return unjust enrichment, amounting to the royalty of a non-exclusive license, for failing to obtain consent to a non-exclusive license from the inventor Plaintiff under Article 2 of the same.

Article 11 of the Invention Promotion Act views an invention as a liberal invention in case an employer, etc. fails to file a patent application within a period designated under the Presidential Order (Article 5 of the same designates the period for four months) after succeeding the right to an in-service invention or waive filing of the application in writing (Paragraph 1), and stipulates that the employer, etc. cannot own a non-exclusive license to the in-service invention being regarded as a liberal one without the consent of the employee, etc in spite of Article 39, Paragraph 1 of the Patent Act (Paragraph

2). The fact that the Defendant's company filed the application for the second invention on May 11, 1995, four months passing from October 13, 1994 when the Defendant's company succeeded to the right to the second invention from the Plaintiff, is as previously seen.

However, even if the Defendant's company had completed the patent registration in its name, although the transfer contract of the second invention was invalidated under the above provision and the Defendant's company did not have a right to obtain a patent, the Plaintiff could not assert invalidity of the patent right having been registered in the name of the Defendant's company until the patent invalidation decision goes final and conclusive. Of course, the Plaintiff could request a patent invalidation trial based on the above grounds, which however, is not feasible here. Therefore, the Defendant has a right to legally practice the invention, and needs not obtain consent of the Plaintiff for practicing the invention because the Plaintiff did not register the patent in his/her own name. As such, the Plaintiff's above arguments are groundless and unreasonable.

서 울 지 방 법 원

남 부 지 원

판 결

사 건	**2001가합13977호**
원 고	최인철
피 고	삼성전자주식회사
판 결 선 고	2002. 8. 22.

주 문

이 사건 소 중 확인청구 부분을 각하한다.

청 구 취 지

원고와 피고 사이에서 별지 특허권목록 기재 1, 2의 특허발명은 직무발명이 아님을 확인한다.

이 유

1. 기초사실

가. 피고회사는 통신기계기구 및 관련기구와 그 부품의 제작, 판매 등을 그 정관상의 목적으로 하고, 1989. 5.경부터 이동전화단말기를 생산해 온 회사이고, 원고는 1989. 1. 10. 피고회사에 입사하여 1992. 7. 13.부터 1995. 2. 16.까지 사이에 피고회사의 '타임머쉰팀'에 소속되어 근무하였다.

나. 피고회사의 '타임머쉰팀'은 신상품개발을 위한 아이디어 창출을 위하여 사내공모를 통해 직원을 선발, 조직한 부서로 그 팀원들은 구체적인 특정 업무를 맡지 아니한 채 매주 팀원들간에 시장성과 실현성 있는 아이디어를 제출하는 평가회를 가지고, 분기별로 경영진을 대상으로 그 결과물을 발표하는 정기 보고회를 개최하였는데, 원고는 같은 팀원인 류동기와 함께 1994. 5. 20. 새로운 한글입력방식의 필요성과 실용화 방안에 관한 '멀티미디어 세계에서 문자의 가치'라는 보고서를, 1994. 7. 18. '새로운 한글입력방법 사업화추진 1차 보고서'를 각 제출하는 등 주로 새로운 한글입력방식의 고안 및 사업화에 주력하였다.

다. 원고는 위 타임머쉰팀에 근무하던 중, 별지 특허권목록 1. 기재의 '문자입력코드 발생방법 및 장치'(이하 '제1발명'이라 한다)를 발명하고, 1993. 2. 19. 피고회사에 제1발명에 관한 직무발명신고를 하면서 특허받을 권리를 양도하였으며, 피고회사는 1993. 7. 6. 피고회사 명의로 제1발명에 관한 특허를 출원하여 1996. 3. 13. 특허등록을 마쳤다.

라. 또한 원고는 위 류동기와 함께 위 목록 2. 기재의 '문자입력코드 발생장치 및 방법'(이하 '제2발명'이라 한다)을 발명하고, 1994. 10. 13. 피고회사에 제2발명에 관한 직무발명신고를 하면서 특허받을 권리를 양도하였으며, 피고회사는 1995. 5. 11. 피고회사 명의로 제2발명에 관한 특허를 출원하여 1998. 8. 10. 특허등록을 마쳤다.

마. 피고회사는 1998. 11.경부터 위 발명들의 문자입력방식을 이용한 이동전화단말기를 생산, 판매해 오고 있다.

2. 원고의 청구 및 이에 대한 판단

가. 원고의 청구내용

원고는 ① 위 각 발명은 원고 개인의 자유발명에 해당됨에도 직무발명으로 오인되어 피고 명의로 특허등록이 된 것이라고 주장하면서 제1, 2발명이 직무발명이 아니라는 확인을 구하고, ② 위 발명들을 직무발명으로 오인하고 체결한 각 양도계약이 무효인 이상 정당한 특허권자가 아닌 피고는 위 발명들을 실시하여 얻은 수익을 부당이득으로서 원고에게 반환할 의무가 있다고 주장하면서, 그 일부로서 10억원을 지급할 것을 구한다.

나. 확인청구 부분의 적법성

피고는, 원고의 위 확인청구는 사실관계의 확인을 구하는 것으로 확인의 소의 대상적격이 없어 부적법하다고 본 안전 항변을 하므로 살피건대, 원고의 위 확인청구는 원고가 이 사건 소로써 구하고 있는 부당이득반환청구의 전제로 제1, 2발명이 직무발명이 아니라는 확인을 구하는 취지인바, 이는 법률요건사실 일부의 확인을 구하는 것이어서 부적법하고, 또한 확인의 소에 있어서 확인의 이익은 원고의 법적 지위가 불안, 위험할 때 그 불안, 위험을 제거하는데 있어 확인판결을 받는 것이 가장 유효·적절한 수단인 경우에 인정된다 할 것인데, 아래 다.의 (2)항에서 보는 바와 같이 가사 제1, 2발명이 직무발명이 아니라 하더라도 특허무효심판절차에서 무효심결이 확정되지 아니하는 이상에는 피고회사 명의로 등록된 특허권에 어떠한 효력이 미친다고 볼 수도 없으므로, 위 발명들이 직무발명이 아니라는 확인을 구하는 것은 원고에게 현존하는 법적 불안, 위험을 해소할 수 있는 유효·적절한 수단이라 할 수 없으니, 결국 원고의 이 사건 소 중 확인청구 부분은 부적법하다.

다. 부당이득반환청구 부분

(1) 원고는 먼저, 제1, 2발명은 직무발명이 아닌 자유발명이므로 그 특허받을 권리를 피고에게 양도한 위 각 양도계약은 법률행위 목적의 원시적 불능 또는 특허법 제39조 제3항에 의하여 당연 무효이거나 민법 제103조에 위반되어 무효라고 주장한다.

그러므로 과연 제1, 2발명이 자유발명인지에 관하여 보건대, 특허법 제39조 제1항은 직무발명의 개념에 관하여 종업원 등이 그 직무에 관하여 발명한 것이 성질상 사용자 등의 업무범위에 속하고, 그 발명을 하게 된 행위가 종업원 등의 현재 또는 과거의 직무에 속하는 경우 그 발명은 직무발명이라고 규정하고 있다.

앞에서 본 바와 같이 피고회사는 통신기계기구의 제작, 판매를 그 설립목적의 하나로 규정하고 있고, 1989년부터 현재까지 이동전화단말기를 주요 생산품목으로 하고 있으며, 위 발명들은 이동전화단말기에 이용될 수 있는 문자입력방식에 관한 발명이므로 피고회사의 업무범위에 속한다 할 것이다. 또한 위 각 발명 당시 원고의 직무는 정보통신부분의 신상품 개발을 위한 아이디어를 창출하는 것으로 실제 한글입력방식에 관한 아이디어 계발에 주력한 결과 제1, 2발명에 이르게 되었으므로 위 각 발명 행위는 원고의 직무에 속한다 할 것이다.

따라서 제1, 2발명은 직무발명에 해당한다고 보아야 할 것이므로, 위 발명들이 직무발명이 아님을 전제로 각 양도계약의 효력을 다투는 원고의 주장은 더 나아가 살필 것 없이 이유 없다.

(2) 원고는 또한, 제2발명에서는 피고회사가 원고로부터 발명에 관한 권리를 승계한 때로부터 4개월이 지나서 특허를 출원하였으므로 이는 발명진흥법 제11조 제1항에 의하여 자유발명으로 간주되고, 같은 조 제2항에 따라 발명자인 원고로부터 통상실시에 대한 동의를 받지 아니한 이상 피고는 원고에게 통상실시료 상당의 부당이득을 반환하여야 한다고 주장한다.

살피건대, 발명진흥법 제11조는 사용자 등이 직무발명에 관한 권리를 승계한 후 대통령령이 정하는 기간(같은 법 시행령 제5조는 그 기간을 4개월로 정하고 있다) 내에 출원을 하지 아니하는 경우 또는 서면으로 그 출원을 포기한 경우 당해 발명은 자유발명으로 보고(제1항), 자유발명으로 보는 직무발명에 대하여는 특허법 제39조 제1항의 규정에도 불구하고 당해 발명을 한 종업원 등의 동의를 받지 아니하고는 통상실

시권을 가질 수 없다(제2항)고 규정하고 있고, 피고회사가 원고로부터 제2발명에 관한 권리를 승계한 1994. 10. 13.로부터 4개월이 경과한 1995. 5. 11.에야 위 발명에 관한 특허를 출원한 사실은 앞에서 본 바와 같다.

그러나 가사 위 법률규정에 의하여 제2발명에 관한 양도계약이 무효가 되어 피고회사가 특허를 받을 권리를 가지지 아니함에도 불구하고 그 명의로 특허등록을 마쳤다 하더라도 원고가 그와 같은 사유를 들어 특허무효심판을 청구함은 별론으로 하고 특허무효심결이 확정되기 전에는 피고 명의로 등록된 특허권의 무효를 주장할 수는 없는 것이므로 피고는 특허권자로서 적법하게 그 발명을 실시할 권리가 있고, 또한 원고가 자기 명의로 특허등록을 받지 아니한 이상 피고회사가 위 발명을 실시함에 있어 원고의 동의를 얻어야 한다고 볼 수도 없으므로, 원고의 위 주장은 이유 없다.

SCHEDULE A

	1	2	3	4	5	6	7	8	9
	MBHB Reference No.	**Title**	**Inventor(s)**	**U.S. Application No.**	**U.S. Filing Date**	**Korean Application No.**	**Filing Date (Korean Application)**	**PCT Application No.**	**Filing Date PCT National Phase**
1	05-386-B	Method For Stabilizing BTS Using E1 Trunk Board Duplexing Of BSC	Se Yeon KIM	10/545,922	August 17, 2005	2003-0018549	March 25, 2003	PCT/KR2004/00645	March 24, 2004
2	05-390-B	Method For Optimizing A DSP Input Clock Using A Comparing/Analyzing Circuit	Seong Chul SHIN	10/545,505	August 12, 2005	2003-0018553	March 25, 2003	PCT/KR2004/00655	March 24, 2004
3	05-392-B	Method For Trunk Line Duplexing Protection Using A Hardware Watchdog	Yeong Weon JUNG	10/545,895	August 17, 2005	2003-0018554	March 25, 2003	PCT/KR2004/00654	March 24, 2004
4	05-428-B	Device for Implementing a RNC Using LVDS	Kyung Hwan AN	10/559,738	December 6, 2005	2003-0051165	July 24, 2003	PCT/KR2004/01858	July 23, 2004
5	05-428-C	Device for Implementing a RNC Using LVDS	Kyung Hwan AN	11/534,965	September 25, 2006	2003-0051165	July 24, 2003	PCT/KR2004/01858	July 23, 2004
6	05-429-B	Method of Allocating Links in a IX EVDO System	Kye Chol CHO	10/560,297	December 12, 2005	2003-0051466	July 25, 2003	PCT/KR2004/01880	July 26, 2004
7	05-432-B	Method for Downloading a Single Firmware Image File to Client Systems Having Different CPU Modules	Chan Soo PARK	10/559,225	December 6, 2005	2003-0051153	July 24, 2003	PCT/KR2004/01853	July 23, 2004
8	05-432-C	Method for Downloading a Single Firmware Image File to Client Systems Having Different CPU Modules	Chan Soo PARK	11/534,970	September 25, 2006	2003-0051153	July 24, 2003	PCT/KR2004/01853	July 23, 2004

SCHEDULE A

	MBHB Reference No.	Title	Inventor(s)	U.S. Application No.	U.S. Filing Date	Korean Application No.	Filing Date (Korean Application)	PCT Application No.	Filing Date PCT National Phase
9	05-433-B	Method for Unifying Operations of Boards by Using Logical Addresses Thereof	Yoon Mi HWANG	10/559,235	December 6, 2005	2003-0051155	July 24, 2003	PCT/KR2004/01855	July 23, 2004
10	05-433-C	Method for Unifying Operations of Boards by Using Logical Addresses Thereof	Yoon Mi HWANG	11/534,960	September 25, 2006	2003-0051155	July 24, 2003	PCT/KR2004/01855	July 23, 2004
11	05-434-B	Method for Establishing an ATM Traffic Channel Path Between a BSC and a BTS in an EV-DO System	Woo Seog KOO	10/560,142	December 9, 2005	2003-0051157	July 24, 2003	PCT/KR2004/001856	July 23, 2004
12	05-438-B	ATM Switch for use in W-CDMA	Cheol Hyun JANG	10/545,578	August 16, 2005	2003-0018557	March 25, 2003	PCT/KR2004/00658	March 25, 2004
13	05-439-B	Remote Unit for Adding Frequency Assignments to a Separation-Type Base Transceiver Station	Jae Ick LEE	10/556,267	November 14, 2005	2003-0034799	May 30, 2003	PCT/KR2004/01276	May 28, 2004
14	05-476-C	Apparatus and Method for Tracking the Position/Object Using a Mobile Communication Network	Choon Geun CHO	10/567,529	February 7, 2006	2003-0066875	September 26, 2003	PCT/KR2004/02466	September 24, 2004
15	05-496-C	Method of Controlling Power in a CDMA-2000 System	Tae Ik SONG	10/568,234	February 14, 2006	2003-0067736	September 30, 2003	PCT/KR2004/02469	September 24, 2004
16	05-497-C	Method of Controlling Power in a W-CDMA Mobile Communication System	Dong Keun KIM	10/569,046	February 22, 2006	2003-0067737	September 30, 2003	PCT/KR2004/02470	September 24, 2004

SCHEDULE A

	MBHB Reference No.	Title	Inventor(s)	U.S. Application No.	U.S. Filing Date	Korean Application No.	Filing Date (Korean Application)	PCT Application No.	Filing Date PCT National Phase
17	05-498-C	Method of Controlling Data Rate for a Forward Data Service in a CDMA 2000-1X System	Jung Han LEE	10/569,041	February 22, 2006	2003-0067738	September 30, 2003	PCT/KR2004/02471	September 24, 2004
18	05-500-B	ATM Switched Router for Transmitting IP Packet Data	Jung Hee PARK	10/585,586	July 11, 2006	2004-0002981	January 15, 2004	PCT/KR2005/00133	January 14, 2005
19	05-507-B	Apparatus and Method for Dualizing an Asynchronous Transfer Mode (ATM) Router in a CDMA2000 System	Tae Hong KIM	10/585,602	July 11, 2006	2004-0002973	January 15, 2004	PCT/KR2005/00134	January 14, 2005
20	05-509-B	Method for Correcting Time Data in a Network Management Application Using a SNMP	Sang Dae PARK	10/586,086	July 13, 2006	2004-0002979	January 15, 2004	PCT/KR2005/00138	January 14, 2005
21	05-511-B	Apparatus and Method for Sensing Faults of Application Programs in a CDMA System	Ki Sung LYU	10/586,289	July 13, 2006	2004-0002980	January 15, 2004	PCT/KR2005/00139	January 14, 2005
22	05-517-B	Automatic Update System and Method for Using a META MIB	Young Jin KIM	10/586,087	July 13, 2006	2004-0002982	January 15, 2004	PCT/KR2005/00140	January 14, 2005

SCHEDULE A

	MBHB Reference No.	Title	Inventor(s)	U.S. Application No.	U.S. Filing Date	Korean Application No.	Filing Date (Korean Application)	PCT Application No.	Filing Date PCT National Phase
23	05-518-B	Structure of a Management Information Base Communicated Between a Network Management System and an Agent of a Network Element	Kwang Seok KANG	10/585,838	July 12, 2006	2004-0002983	January 15, 2004	PCT/KR2005/00141	January 14, 2005
24	05-595-B	Method of Distributing Network Traffic in a Mobile Communication System	Hyun Young SHIN	10/556,924	November 14, 2005	2003-0035283	June 2, 2003	PCT/KR2004/01310	June 2, 2004
25	05-597-B	System and Method for Tracking Position of a Mobile Unit Using Beacons in a Mobile Communications System	June Man KIM	10/560,664	December 13, 2005	2003-0050916	July 24, 2003	PCT/KR2004/01851	July 23, 2004
26	05-615-B	Method for Call Completion Service	Sea Gon CHUN	10/556,274	November 14, 2005	2003-0034806	May 30, 2003	PCT/KR2004/01274	May 28, 2004
27	05-616-B	Method for Automatically Setting a Frequency of a Base Station in a CDMA-2000 System	Ju Hyun BAN; Sang Won SON	10/561,351	December 19, 2005	2003-0051154	July 24, 2003	PCT/KR2004/01854	July 23, 2004

Supplemental Application Data Sheet

Application Information

Application Type::	Regular
Subject Matter::	Utility
Suggested Classification::	N/A
Suggested Group Art Unit::	N/A
CD-Rom or CD-R?	N/A
Title::	ATM ~~WITCHED~~ SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA
Attorney Docket Number::	05-500-B
Request for Early Publication?::	No
Request for Non-Publication?::	No
Suggested Drawing Figure::	3
Total Drawing Sheets::	1
Small Entity::	No
Petition Included?::	No
Secrecy Order in Parent Appl.?::	No

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Correspondence Information

Correspondence Customer Number:: 20306

Representative Information

Representative Customer Number::	20306

Domestic Priority Information

Application::	Continuity Type::	Parent Application::	Parent Filing Date::
This application	National Stage of	PCT/KR2005/000133	14 January 2005

Foreign Priority Information

Country::	Application Number::	Filing Date::	Priority Claimed::
Korea	10-2004-0002981	15 January ~~1004~~ 2004	Yes

Assignee Information

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City of mailing address:: Kyongki-do

Country of mailing address:: Korea

Postal or Zip Code of mailing address:: 467-701

EXHIBIT B

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RECORDATION DATE: 06/15/2007

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BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).
DOCKET NUMBER: 05-500-B

ASSIGNOR:
HYUNDAI SYSCOMM, INC.

DOC DATE: 04/27/2004

ASSIGNEE:
UTSTARCOM KOREA LIMITED
SAN 136-1, AMI-RI, BUBAL-EUB,
ICHEON-SI
KYONGKI-DO, REPUBLIC OF KOREA

467-701

SERIAL NUMBER: 10585586
PATENT NUMBER:

FILING DATE:
ISSUE DATE:

TITLE: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

06/15/2007
500296831

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Hyundai Syscomm, Inc.	04/27/2004

RECEIVING PARTY DATA

Name:	UTStarcom Korea Limited
Street Address:	San 136-1, Ami-ri, Bubal-eub, Icheon-si
City:	Kyongki-do
State/Country:	KOREA, REPUBLIC OF
Postal Code:	467-701

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	10585586

CORRESPONDENCE DATA

Fax Number: (312)913-0002
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.
Phone: 312-913-0001
Email: docketing@mbhb.com
Correspondent Name: McDonnell Boehnen Hulbert & Berghoff LLP
Address Line 1: 300 S. Wacker Dr., Ste. 3100
Address Line 2: Robert J. Irvine
Address Line 4: Chicago, ILLINOIS 60606

ATTORNEY DOCKET NUMBER:	05-500-B
NAME OF SUBMITTER:	Robert J. Irvine III

Total Attachments: 49
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〔제41호서식〕

공증인가 법무법인 대종종합법률사무소

서울·종로구 당주동 160
(변호사회관 303호)
〔공증부 736-6604〕

Registered No. 2004 - 6060

NOTARIAL CERTIFICATE

DAE JONG LEGAL CORPORATION

160, Dang Joo-Dong, Jong Ro-Ku,
Seoul, Korea

23230-05711일
90.11.26 승인

210㎜ × 297㎜(특급) 70g/㎡

KIM & CHANG

Hannuri Building, 219 Naeja-dong, Jongno-gu, Seoul 110-053, Korea
Telephone: (822) 764-8855 / 2122-3900 Fax: (822) 741-0328 / 745-5954 / 763-7434
E-Mail: all@ip.kimchang.com

DECLARATION

I, the undersigned, hereby declare:

(1) That my name, mailing address and citizenship are as stated below;

(2) That I am knowledgeable in both English and Korean, which are the languages used in relation to the Assignment filed with the Korean Intellectual Property Office; and

(3) That I have translated said Assignment filed with the Korean Intellectual Property Office into English, a copy of which is attached hereto, and believe that said translation is a true and complete translation of the aforementioned Korean Assignment.

22nd day of November, 2004

Full name of the translator : LIM, Ji Won

Signature of the translator : Jiwon Lim

Mailing address : c/o Kim & Chang, Hannuri Building, 219 Naeja-dong, Jongno-gu, Seoul 110-053, Korea, Republic of Korea

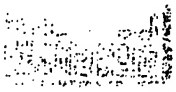
Citizenship : Republic of Korea

KIM & CHANG
[Translation]

ASSIGNMENT

By this instrument, HYUNDAI SYSCOMM, INC., a corporation duly organized and existing under the Laws of Republic of Korea at San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-701, Republic of Korea do hereby declare that on April 27, 2004 it has assigned and transferred all rights, title and interest in the cases as listed in the attached Schedule I to UTStarcom Korea Limited, a corporation duly organized and existing under the laws of Republic of Korea at San 136-1, Ami-ri, Bubal-eub, Icheon-si, Kyongki-do 467-701, Republic of Korea

IN WITNESS WHEREOF,

I have set my hand hereto this 27th day of April, 2004. 

Assignor: HYUNDAI SYSCOMM INC.

By: (SEALED)

Typed Name: SEONG-IK JANG

Position: CEO & President

Schedule 1

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2	1996025985
3	1997007238
4	1997013781
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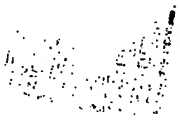

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Confidential

EXHIBIT 1

金·張 法律事務所
KIM & CHANG

서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
전화: (02) 764-8855 / 2122-3900 Fax: (02) 745-5954 / 741-0328 / 763-7434
E-Mail: all@ip.kimchang.com

2006년 12월 1일

수 신 : 박 정 희 님
경기도 이천시 부발읍 아미리 산 136-1 (우. 467-860)

제 목 : 미국 특허청 제출용 서명서류 송부의 건 (U.S. Serial No. 10/585,586)
당소 정리 번호 : GP048360 (FE251546)

귀하의 사업에 무궁한 발전을 기원합니다.

당소는 유티스타콤 코리아 유한회사의 대리인인 김&장 특허법률사무소 입니다.

귀하께서는 2002년도에 현대전자산업 주식회사/현대시스콤 재직 중에 개발하신 아래의 발명에 대한 권리를 당시 소속회사의 직무발명 양도규정에 따라 소속회사에 양도하였으며, 현재 이 발명에 대해 특허를 받을 수 있는 권리는 귀하의 소속회사로부터 당소의 의뢰인인 유티스타콤 코리아 유한회사로 이전되어 있는 상태에 있습니다. 이 발명에 대하여는 한국 특허출원을 하고 이어서 현재 미국 특허출원을 진행 중에 있는데, 미국의 특허제도에 따르면 출원시 발명자가 출원인이 되어야 하기 때문에 미국 특허청은 특허를 받을 수 있는 권리가 당소의 의뢰인에게 있다 하더라도 첨부된 바와 같은 서류에 출원인으로서 발명자가 직접 서명한 후 이를 제출하도록 요구하고 있습니다.

첨부된 서류 중 양도증(assignment)과 관련해서는, 귀하께서 이미 이 발명에 대한 권리를 양도한 상태이기 때문에 첨부된 양도증은 이를 확인하는 절차에 불과하며 새로이 무언가를 양도하는 것은 아님을 알려드립니다. 발명자 선언서(declaration)는 귀하께서 이 발명의 발명자임을 선서하는 내용으로 되어 있습니다.

이와 같은 사정으로 첨부 서류를 보내드리오니 서명 후 당소로 반송하여 주시기를 부탁드립니다. 반송은 퀵서비스(착불) 등 귀하께서 편한 방법으로 아래의 당소 주소로 해 주시고 어떤 경우에든 당소에서 비용을 부담할 것이오니 비용 영수증 등도 함께 반송하여 주시면 감사하겠습니다.

2006.12.

이 우편물은 2006-12-01 제 07026739 호에 의하여 내용증명우편물로 발송하였음을 증명함
광화문 우체국장

반송 주소: 서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 김.장특허법률사무소
(우편번호 110-786)

발명의 명칭: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

-담당자: 김 주 영 변리사/ 윤 지 홍 변리사
-전화: 02-2122-3561 / 02-2122-3515
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변리사 윤 지 홍

첨부있음.

[Translation]

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E-Mail: all@ip.kimchang.com

December 1, 2006

To. PARK, Jung Hee
San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea

Re. Declaration and Power of Attorney and Assignment to be filed with U.S. Patent and Trademark Office (U.S. Serial No. 10/585,586)
K&C Ref.: GP048360/FE251546

I hope your business is prospering.

I am a patent attorney for a law firm, Kim & Chang, and contacting you on behalf of my client UTStarcom Korea Limited.

You had assigned your invention as identified on the next page to your former company in 2002, which was conceived when you were working for Hyundai Electronics Industries, Co., Ltd./ Hyundai Syscomm, Inc. under the provisions of the employee's invention compensation policy of the company. Therefore, the right to receive patent for the invention was transferred to the former company. Recently, the right to receive patent was transferred to our client, UTStarcom Korea Limited, hereinafter referred to as "UTSK" from your former company. With respect to this invention, a Korean patent application was filed and its counterpart U.S. patent application has recently been filed with the U.S. Patent and Trademark Office. According to the U.S. Patent law, the inventor is only entitled to be an applicant for a patent application. Therefore, although the right to receive patent has been transferred to our client, UTSK, the U.S. Patent and Trademark Office requires filing of documents as enclosed herewith which must be signed by the inventor.

With regard to the assignment, please be informed that signing the enclosed assignment does not mean that you newly transfer something another to somebody, it merely means confirming that you had already assigned the right to receive patent in 2002. As for the Declaration, the signing the declaration means that you are declaring that you are the

GWANG WHA MOON POST OFFICE- CONTENTS CERTIFIED MAIL CERTIFICATE NO. 07026739, 2006-12-01

[Translation]

true and sole inventor of this invention.

As explained above, I enclose herewith these documents. Please sign and date the marked portions and return them to us via courier, registered mail or whatever is convenient for you. Any costs to be incurred in this connection are surely responsible to our side. Please send us any receipts for payment in return.

Return Address: Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea

Title of Invention: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

-Contact Person: Attorney Joo-Young Kim / Attorney Jee Hong YOON
-Telephone: 02-2122-3561 / 02-2122-3515
-E-mail: jykim1@ip.kimchang.com

Attorney Jee Hong YOON (seal)

Enclosure(s)

HYUNDAI SYSCOMM

社 外 秘

직무 발명 신고서

신고일:2002년 11월 30일

발명실	결재	업무코드		승인권자	현장관리자	검토	법제특허부	결재	업무코드		승인권자
		주발명자	검토	팀장					기안	검토	승인
	직위/성명	사원/박정희	/	차장/정성현		/		직위/성명			/
	일 자	11/30	/	11/30	관리번호			일 자			
	보존년한	0.1.2.3.5.10.영구						보존년한	1.3.5.10.영구	보안등급	1,2,3 대외비

사내 직무발명보상기준에 의거하여 출원/등록을 의뢰하며,국내/외 등록권리를 양도합니다.

발명자 기재사항

발명의 명칭	HAMS-5 switched Router 간에 ENLA, IFCA를 통한 IP Packet 전송 시험 기능
발명의 개요	1. HAMS-5 switched router를 통한 ENLA,IFCA간 데이터 전송,수신 기능이 정상적으로 수행되는지의 기능. 2. 시스템간 IFCA-ENLA <-> ENLA-IFCA 연결시 IP Packet 전송기능. 3. 시스템간 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 연결시 IP Packet 전송기능.
관련PROJECT명	HAMS-5 switched router 개발
실 시 상 황	□ 착상 ■ 설계완료 □ 시험(중,완료) □ 사업화(준비중,실시중)
본발명의 발표상황	■ 미발표 □ 발표예정 □ 旣발표 ※旣발표 또는 발표 예정인 경우 발표(예정)일과 관련논문등 기입 요망 [발표(예정)일:2000년 월 일. 관련논문:]
선행특허자료	국 내 : 외 국 :
출원완급	■ 보 통 □ 지 급-->(일이내) 지급출원 이 유 :
외국출원	□ 유 (이유:) ■ 무
KEY WORD	

법제특허부 기재사항

접 수 일	2002년11월30일	대리인	제스	전담자관리번호 CM2002-12-0064
국내출원	☑ 특허 □ 실용 □ 공개기보 □ 출원보류(이유:)			
	심사청구	□ 유 ☑ 무	전략특허PROJECT명	23
외국출원	□ 유 □ 무		출원등급	B
	심의여부	□ 유 □ 무	*대리인 특허명세서작성 참조사항*	

출원국가선정				
□ 개별국출원 □ EPO출원 □ PCT출원				□ 사무소 자체 국내출원 ☑ 특허팀검토후 국내출원 □ 국내외 동시출원
1순위		5순위		검토의견 OK
2순위		6순위		
3순위		7순위		
4순위		8순위		
비고				

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발명실장 기재사항

< 발명 평가내용 >

구 분	내 용	평가점수
기 술 성	단순 조합 기술임	☐ 1점
	약간 높은 수준을 요하는 기술임	☑ 3점
	고도의 수준을 요하는 기술임	☐ 5점
실현가능성	이론상 실현은 가능하나, 실험계획은 없슴	☐ 1점
	테스트 하려면 관련기술의 발전이 요구됨	☐ 2점
	테스트중이거나 예정임	☐ 3점
	양호한 테스트 결과 얻음(자료첨부 가능)	☐ 5점
	현재 사업화 준비중 또는 실시중임	☑ 7점
효 과	개선된 효과의 수준은? (공정 단순화, Yield, Cost 등의 측면)	☐ 3점 ☑ 2점 ☐ 1점
발명중요도	기술공개로 타사 권리확보를 방어하는 수준임	☐ 1점
	양산에 적용(예정) 가능한 발명임	☑ 3점
	반드시 필요한 독점 기술임	☐ 5점
평가결과		(15) 점

주)※상기 발명 평가표는 반드시 실장이 직접 기재하시기 바랍니다.
※"실현가능성"란에서 5점,7점에 해당된 발명은 증빙 자료가 반드시 필요 합니다.
※평가를 완료하신후 평가결과를 기입 바랍니다.

< 외국출원 평가내용 >

발명의 적용제품 현 황	*적용제품:	*복수제품에 적용되는 경우 전부 기재하시기 바라며, 향후 적용 제품경우 예상시점을 기재요망
	*관련기술:	
	*적용시기:	

평가내용		출원희망국가	
	☐ 절대 필요		
	☐ 국내출원후 1년간 관망	1순위	
	☐ 필요 없음	2순위	
	☐ 개별국출원, ☐ EPO출원, ☐ PCT출원	3순위	
	기술적측면	4순위	
		5순위	
		6순위	
		7순위	
		8순위	
	경제적측면	평가자	
		성명:	
		직위:	
		서명:	

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발명자 인적사항								
발명자 1	성명	(한글) 박 정희		(Soft Ware) 개발 Group	(네트웍 개발)실			
		(한문) 朴 正禧		직위	사원	사번	H26771	TEL (8040)
		(영문) Park Jung Hee		주민등록No	740320-1222320			
	E-mail	mirine@hysyscomm.com	주소	(467-701) 경기도 이천시 부발읍 아미리 산 136-1			서 명	
발명자 2	성명	(한글)		( ) 개발 Group	( )실			
		(한문)		직위		사번		TEL ( )
		(영문)		주민등록No	-			
	E-mail		주소	(-)			서 명	
발명자 3	성명	(한글)		( ) 개발 Group	( )실			
		(한문)		직위		사번		TEL ( )
		(영문)		주민등록No	-			
	E-mail		주소	(-)			서 명	
발명자 4	성명	(한글)		( ) 개발 Group	( )실			
		(한문)		직위		사번		TEL ( )
		(영문)		주민등록No	-			
	E-mail		주소	(-)			서 명	
발명자 5	성명	(한글)		( ) 개발 Group	( )실			
		(한문)		직위		사번		TEL ( )
		(영문)		주민등록No	-			
	E-mail		주소	(-)			서 명	
발명자 6	성명	(한글)		( ) 개발 Group	( )실			
		(한문)		직위		사번		TEL ( )
		(영문)		주민등록No	-			
	E-mail		주소	(-)			서 명	

㈜1. 주소는 상세히 기재하시고, E-mail은 반드시 *회사계정*으로 기재하시기 바람.
2. 영문기재시 Fullname을 기재하시기 바람.

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Confidential

Employee's Declaration of Invention

Date: November 30, 2002

Invention Team					On-the-job Maintenance Team		Patent Team				
Approval	Work Code		Approving Authority		Reviewer	Approval	Work Code		Approving Authority
	Primary Inventor	Reviewer	Approved by				Drafter	Reviewer	Approved by
	Signed	-	*Signed*				*signed*	*signed*	*signed*
Position / Name	SW/Jung Hee PARK		CJ/JEONG, S.H.		/	Position / Name	SW/LEE, Chun Mi	DL/YOON, Hyoung Jin	
Date	Nov.27		Nov. 30	Control No.		Date			
Years in Storage	0, 1, 2, 3, 5, 10, Permanent					Years in Storage	1, 3, 5, 10, P	Security Rating	1, 2, 3, Confidential

Under the provisions of the employee's invention compensation policy, I request to proceed with the filing/registration of my invention and to assign its rights for domestic and international registrations.

Statement by Inventor

Title of the Invention	Function to test IP packet transmission between HAMS-5 switched routers by means of ENLA and IFCA
Summary of the Invention	The present invention provides the following functions: 1. To test if data transmission/reception functions of ENLA and IFCA are normally operated between HAMS-5 switched routers; 2. To transmit IP packets when IFCA-ENLA and ENLA-IFCA links are set up between systems; and, 3. To transmit IP packets when ENLA-IFCA-SOLA and SOLA-IFCA-ENLA links are set up between systems.
Name(s) of Related Projects	Development of HAMS-5 switched router
Status of the Embodiment	☐ Conception ☒ Completed Design ☐ (In, Completed) Testing ☐ (Preparing, In) Business Implementation
Publication Status of the Invention	☒ Unpublished ☐ Expected to be Published ※ ☐ Published Earlier ※ ※ If checked, please specify the (scheduled) date of publication and related dissertations. [(Scheduled) Date of Publication: Related dissertations:]
Prior Art	Korean: Foreign:
Filing Term	☒ Standard ☐ Urgent → (Within days)
Reason for Urgent Filing	
Foreign Filing	☐ Yes (Reason:) ☒ No
Key Word	

Statement by Patent Team

Date of Receipt	November 30, 2002	Agent	Phoenix patent office	Hyundai Syscomm Ref.	CM2002-12-0064
Korean Filing	☑ Patent ☐ Utility Model ☐ Journal of Technical Disclosure ☐ Withhold Filing (Reason:)				
	Request for Examination	☐ Yes ☒ No	Strategic Patent Project for the Invention	23	
Foreign Filing	☐ Yes ☐ No		Filing Rating	B	
	Deliberation	☐ Yes ☐ No	*Remarks for Agents writing the specification*		

Designating Countries to File					
☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing				☐ Domestic filing without Review ☑ Domestic filing after Patent Team Review ☐ Simultaneous Korean & Foreign Filing	
1st Priority		5th Priority		Reviewer's Opinion	OK
2nd Priority		6th Priority			
3rd Priority		7th Priority			
4th Priority		8th Priority			
Note					

Statement by Manager of Invention Team

< Evaluation of the Invention>

Category	Contents	Evaluation Grade
Technology	Simple technology	☐ 1 point
	Slightly higher technology	☒ 3 point
	Advanced technology	☐ 5 point
Possible Implementation	Theoretically possible to implement, but has no plan for testing	☐ 1 point
	Developments in related technologies are required first for testing	☐ 2 point
	Currently testing or planning to test	☐ 3 point
	Tested and obtained satisfactory results (Attach Documents)	☐ 5 point
	Preparing or currently implementing into one's business	☒ 7 point
Effects	What is the level of improvement? (Simplification of processes, yield, cost etc.)	☐ 3 ☒ 2 ☐ 1 point
Importance	Defending the rights in disclosing the technology	☐ 1 point
	Adaptable (or scheduled) for mass production	☒ 3 point
	Absolutely necessary to obtain exclusive technology	☐ 5 point
Evaluation Result		(15)Point

Note: ※ The Invention Evaluation form must be filled out by the manager of the invention team.
※ Evidence is necessary for those inventions that are rated 5 or 7 points in the section of "Possibility for Implementation."
※ The Evaluation Result should be filled in only after completing the Evaluation.

<Evaluation for Foreign Filing>

Status of products to which the invention was applied	* Applied Product:	* For cases applied to multiple products, list all product names. For future cases to be applied, mark the estimated period.
	* Related Technology:	
	* Applied Period:	

Evaluation

☐ Absolutely necessary
☐ Observe for a year after filing domestically
☐ Not necessary

☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing

Technological Factor

Economical Factor

Designation of Countries	
1st Priority	
2nd Priority	
3rd Priority	
4th Priority	
5th Priority	
6th Priority	
7th Priority	
8th Priority	

Evaluator
Name: Position: Signature:

Inventor Information									
Primary Inventor	Name	(Korean) 박 정 희	(S/W) Development Group (Network) Team						
		(Chinese) 朴 正 禧	Position	SW	Employee ID No.	H26771	Tel (8040)		
		(English) Park Jung Hee	Residence ID		740320-1222320				
	E-mail	mirine@hysyscomm.com	Address	San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-701			Signature	*signed*	
Joint Inventor	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID		-				%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		

Note: 1. The full address and e-mail address are required.
2. Write the full name in English.

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발명의 명세서

1. 발명의 명칭

발명의 실질적 내용에 대해 가장 적절히 표현할수 있는 명칭을 간결하고 명확하게 기재하되 약자는 가급적 피해주시기 바람.

HAMS-5 switched router의 IFCA(Ip Forwarding Control Board Assembly)-ENLA(Ethernet Link Board Assembly) <-> ENLAEthernet Link Board Assembly)-IFCA(Ip Forwarding Control Board Assembly) 를 통한 IFCA의 ROUTE기능과 ENLA의 Ehternet switching기능에 의한 IP 서비스

2. 발명의 상세한 설명

1)산업상의 이용분야

발명이 무엇에 관한 것이며,어느 기술분야에 적용되는지를 기재하고,타 기술 분야에서도 활용이 가능하면 그 기술분야도 기재하시기 바람.

1. 위 발명은 IP 서비스 기능을 이용한 HAMS-5간의 각 node들 간에 Ehternet 서비스를 수행.
2. HAMS-5기능들중에 Ethernet서비스를 할 수 있도록 Router사이에 Ethernet관련 서비스에 적용된다.
3. Router끼리 Ethernet으로 Path를 설정하지 않고 Atm으로 Path를 연결하여 보다 빠르고 다양한 서비스 제공이 가능하다.

2)종래기술의 설명 및 그 문제점

*본 발명이 속하는 기술분야에서 본 발명과 연관되는 종래기술이 어떻게 실시되는지 기술적 구성이나 개요를 비교적 상세히 설명하고,그 문제를 기재하기 바람.
*본 발명과 관련된 참고문헌이나 특허공보가 있으면 문헌명이나 공보번호를 기재하고,그 자료를 본 명세서에 첨부하시기 바람.

종래의 기술은 ENLA 자체, 또는 IFCA 자체에 대해 기능 시험을 하는 단계였다.
자체 기능도 되지 않는 상황이었고 이와 같은 경우에 ENLA 자체내부 디바이스,
IFCA 내부 디바이스에 대한 검증만 수행한다.
이로 인해 ENLA, IFCA간에 연결되는 경로는 검증하지 못하는 제한이 있다. 그리고 실질적인 Ethernet 서비스 기능을 시험하지 못하는 제약이 있다.

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3)종래 문제점을 해결하기 위한 본 발명의 기술적 원리

*본 발명에서 상기와 같은 기술적 문제점을 어떻게 해결하고 있는지 그 해결책의 요지만을 기재하고, 그 상세한 설명은 다음항에 기재하기 바람.
*어떤 효과를 지닌 어떤기술을 사용하여 어떤 문제점을 해결하였다는 등

1. 종래의 기술적 문제를 해결하기 위해 ENLA, IFCA간의 Atm Path 시험 경로를 구성.
2. IFCA, SOLA간의 Atm Path 시험 경로 구성.
3. MP(Main Processor)에서 네트웍에 대한 정보를 설정하여 IFCA에게 네트웍 정보를 설정.
4. ENLA에서 관리 하는 각 Node들의 Mac_Address를 Table로 유지하여 Mac_Switching 기능이 되도록 설정.
5. IFCA에서는 ENLA, SOLA와 Atm-Path 연결 설정을 수행하고 네트웍 정보를 구성.
6. IFCA 의 Default Routing table을 Sola로 정하여 ATM Path를 통하여 다른 Router로 데이타를 보낼수 있도록 한다.
   이를 통해 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 에 이르는 경로에 대한 데이터 전송 기능 수행을 수행한다.

4)본 발명의 구성 및 그 전반적인 동작설명

*본 발명은 본 발명이 속하는 기술분야 또는 연관된 기술분야에 종사하는 기술자라면 누구라도 실시할수 있을 정도로 상세하고도 정확한 표현으로 기재하시기 바람.

1. IFCA(Ip Forwarding Control Board Assembly)
   1.1 메인 프로세서(MP)에서 Router간에 Routing정보를 주고 받을 수 있는 Path를 ENLA 가상의 네크웍 정보를 IFCA에 설정.
   1.2 ENLA Port에 연결되는 각 Node들의 GateWay를 설정.
   1.3 IFCA가 네트웍 정보를 받아 IP Routing할수 있는 서비스 준비를 하고 ENLA Port에 연결되는 각 Node들의 GateWay를 설정한다.

2. ENLA(Ethernet Link Board Assembly)
   2.1 ENLA에서는 각 node들로부터 전달되는 Source Mac_Address를 table로 관리한다.
   2.2 ENLA에서 관리하는 Mac_Address table은 timer를 두고 들어 오지 않는 node에 대해서는 Table에서 삭제한다.
   2.3 ENLA에서는 IFCA가 보내주는 Packet의 Destination Mac_Address를 보고 어느 Port로 보낼지 판단하여 해당 Mac_Address가 등록된 Port로 Packet을 보낸다.

3. 기본적인 동작 예.
   IFCA, ENLA의 기본적인 setting이 끝났을때
   3.1 어느 Node에서 다른 Router의 다른 network를 가진 Node와 통신하고자 한다.
   3.2 처음에 Node에서 연결하고자 하는 Node에게 Packet을 던진다.
   3.3 이 Packet은 Enla를 타고 Atm-Switch를 타고 IFCA로 들어 간다.
   3.4 IFCA는 가지고 있는 Routing table을 참조 하여 어디로 보낼지를 결정한다.
   3.5 IFCA가 다시 ENLA로 보낸 Packet은 다른쪽 Router의 ENLA로 들어 간다.
   3.6 Atm-Switch를 거쳐 다시 IFCA로 Packet이 전달되고 IFCA에서는 어디로 보낼지 결정한다.
   3.7 Packet은 IFCA에서 ENLA로 보내게 된다.
   3.8 ENLA에는 Packet에 있는 destination mac_address를 보고 Mac_Address Table에서 해당 mac_address를 검색한다.
   3.9 찾은 mac_address에 해당하는 Port로 Packet을 보내게 된다.

4) 항에서 계속

4. Router 간에 Atm Path를 통한 Ethernet 서비스.

4.1 LAN Cable을 이용하여 ENLA끼리 연결하는 것이 아니다.
4.2 IFCA에서 Atm Path를 Sola와 연결하여 Router간에는 Sola와 Sola로 Atm Path로 연결을 하게된다.
4.3 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA
4.4 초기 보드들이 Setup이 이루어 질때 ENLA, IFCA, SOLA사이의 Atm Path는 default로 잡히게 설정.

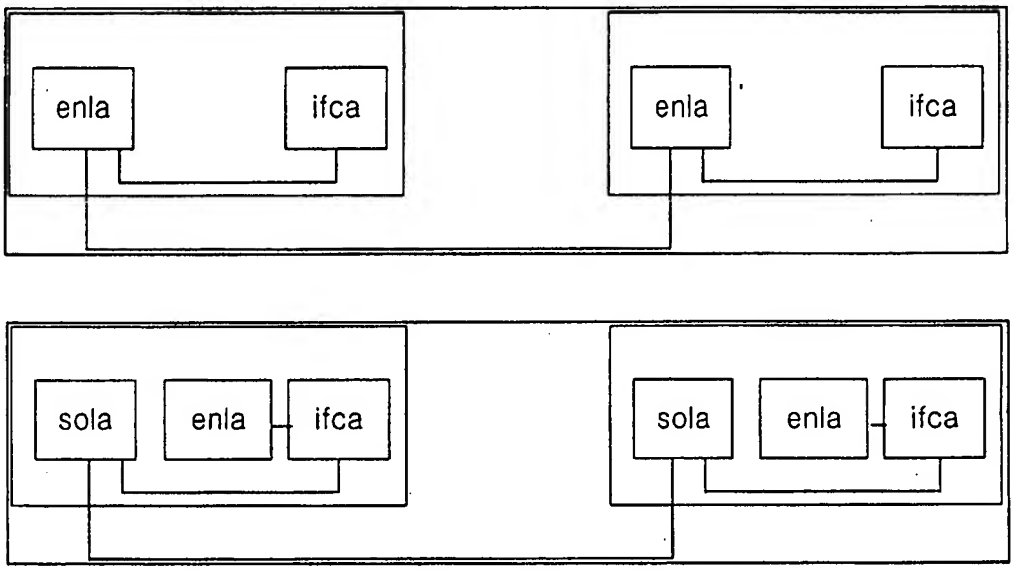
5. Router간에 Lan-cable연결과 Sola를 통한 Atm Path의 차이.
5.1 Sola를 통한 Atm Path가 Lan-cable을 통한 연결보다 속도가 빠르다.
5.2 5.3에서 나타낸것을 보면 별차이는 없어 보인다. 하지만 ENLA를 거치지 않고 직접 SOLA를 거쳐 IFCA로 가면 중간에 delay를 줄일 수 있다.
5.3
5.2.1 Lan-cable을 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->ENLA<->ENLA<->IFCA<->ENLA<->Node
5.2.2 Atm Path를 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->SOLA<->SOLA<->IFCA<->ENLA<->Node

6.
6.1 ENLA에서 4Port를 하나의 네트웍으로 구성할 수 있다.
6.2 ENLA에서 2Port씩 두개의 서브 네트웍으로 구성할 수 있다.

5)본 발명의 다른 실시예

4)항에 기재된 본 발명의 주요 실시예 이외에 다른 실시예가 있으면 도면을 도시하고, 그 내용을 실시할 수 있을 정도로 구체화 하여 기재.

1. Router간에 Lan cable을 사용하지 않고 Atm Path를 통한 연결을 설정한다.
   이렇게 하면 좀 더 속도면에서 향상시킬수 있다.
2. Router간 Atm-Path 연결.



6)본 발명의 효과

본 발명과 종래기술과의 구성 및 동작의 차이에서 오는 효과를 구체적으로 기재하고,부수적으로 발생되는 이점도 기재하나,단 기술적인 근거가 없는 막연한 경제적 효과 등은 기재 불필요.

1.1 ENLA는 Mac_Switching관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.2 IFCA는 Routing관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.3 SOLA를 통한 Atm-Path의 연결에 의한 Atm Switched Router간의 Lan-cable연결에 비해 빠른 전송서브시를 제공할수 있다.

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3. 발명의 권리보호 범위

본 항은 발명의 명세서에 기재된 내용중 권리로서 보호 받고자 하는 사항을 기재하되, 본 발명에 의해 새롭게 창작된 구성 혹은 기능만을 기재함. 특히, 그중 보호를 받아야할 부분이나, 또 다른 실시예가 있는 경우 이를 다른 항으로 명확하고, 간결하게 기재하시기 바람.

1. ENLA, SWITCH, IFCA, SOLA 간 데이터 전송을 위한 경로 설정 및 경로 설정 해제 기능

2. 운용자가 원하는 네트웍정보를 입력 받아 라인카드 초기 Setup시 네트웍정보를 받아 네트웍을 구성하는 기능.

3. 네트웍 구성시 서브네트웍을 1개 또는 2개로 구성할수 있는 기능.

4. 같은 서브네트웍인 경우 IFCA까지 가지 않고 바로 Mac_Switching할수 있는 기능.

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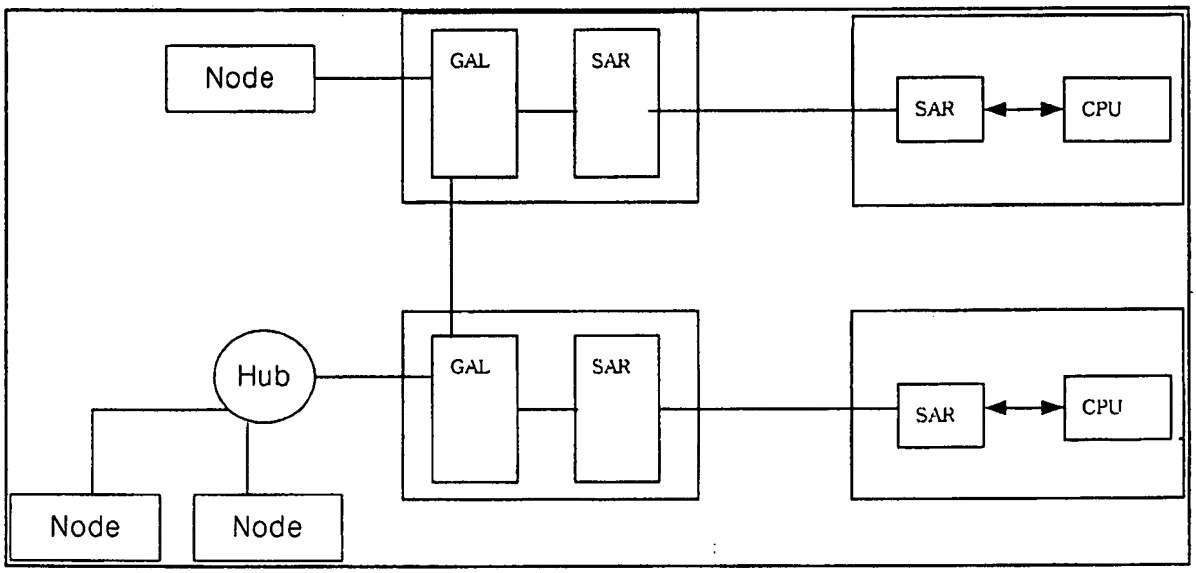
4. 도면의 간단한 설명

※도면의 도시된 내용에 따라 발명자가 의도했던 내용이 변할수 있으므로 본 발명서에 필요한 도면을 정확하게 표시하여,명세서 뒤에 반드시 첨부하시기 바람.
※ ①전자전기회로 관련 출원은 회로도,블록도,FLOW CHART,특성그래프 등이 첨부되어야함.
②기계관련 출원은 전체 구조도,상세 구조도,투시도 등이 첨부되어야 하며,
③공정관련 출원은 전체공정 계통도와 상세공정도 및 특성그래프 등이 첨부되어야 함.
※본 항에 예를들에 "제1도는 XXX 회로도,제2도는 ...소자의 단면도~ ,"와 같이 기재바람.
※도면의 필요한 부분에 대해서는 그 명칭을 본 항 하단부 아래에 기재하시기 바람.
(<예>1:제어부 2:감지부)

1. 밑에 있는 도식은 Router간에 ENLA 보드사이에 Lan cable을 이용하여 Router를 연결하여 운용.

2.

Node -> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
<- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-
-> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
Node <- Hub <- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-



Case No.: 05-500-B

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

the specification of which is attached hereto unless the following space is checked:

☒ was filed on July 11, 2006 as United States Application Serial Number 10/585,586.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 (including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application).

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	Number	Country	Day/Month/Year Filed
1.	PCT/KR2005/000133	PCT	14 January 2005
2.	10-2004-0002981	Korea	15 January 2004

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Robert J. Irvine, III
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Jung Hee PARK

Inventor's signature: _____ Date: _____
Residence: San 136-1, Ami-ri, Bubal-eub Icheon-si, Gyeonggi-do 467-860, Republic of Korea
Citizenship: Republic of Korea
Post Office Address: San 136-1, Ami-ri, Bubal-eub Icheon-si, Gyeonggi-do 467-860, Republic of Korea

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

ASSIGNMENT

Case No.: 05-500-B
Inventor: **Jung Hee PARK**
Date of Execution
of Application:

Serial No.: 10/585,586

Filing Date: July 11, 2006

In consideration of One Dollar ($1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

UTSTARCOM KOREA LIMITED

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

and identified as:

Case No. 05-500-B

in the offices of MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the

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ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WITNESS my hand and seal this _____ day of _____, _____.

_____
Jung Hee PARK

State of _____

County of _____

The foregoing instrument was acknowledged before me this _____ day of

_____, _____ by _____.

_____
NOTARY PUBLIC

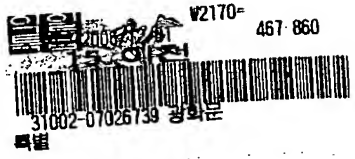
McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

EXHIBIT 2

경기도 이천시 부발읍 아미리 산 136-1

박 정 희 님 귀하

467-860



[Translation]

From Kim & Chang
To Mr. Jung Hee PARK
San 136-1, Amiri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea

[Mail Return Notice by Post Office]
☐ delivery date: 2006-12-01 / returned 2006-12-05

[Reason for Return]
☐ Recipient not present ☐ Recipient has moved ☐ Recipient refused to accept package ☑ **Incorrect address**
☐ Recipient does not reside at indicated address

US 10/585,586
DOC. 2 (Translation)

EXHIBIT 3

(1) Search from www.yahoo.co.kr
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

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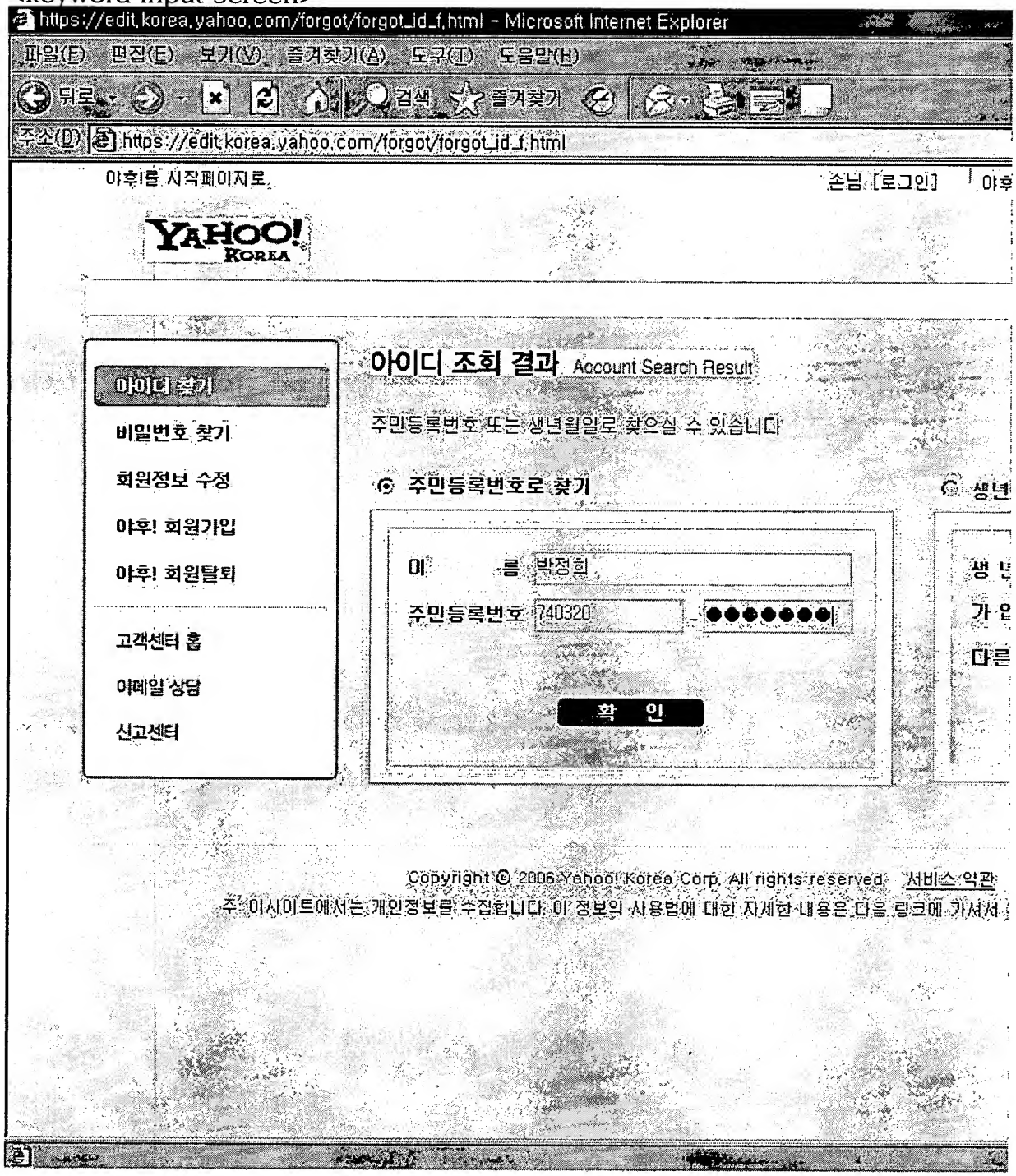

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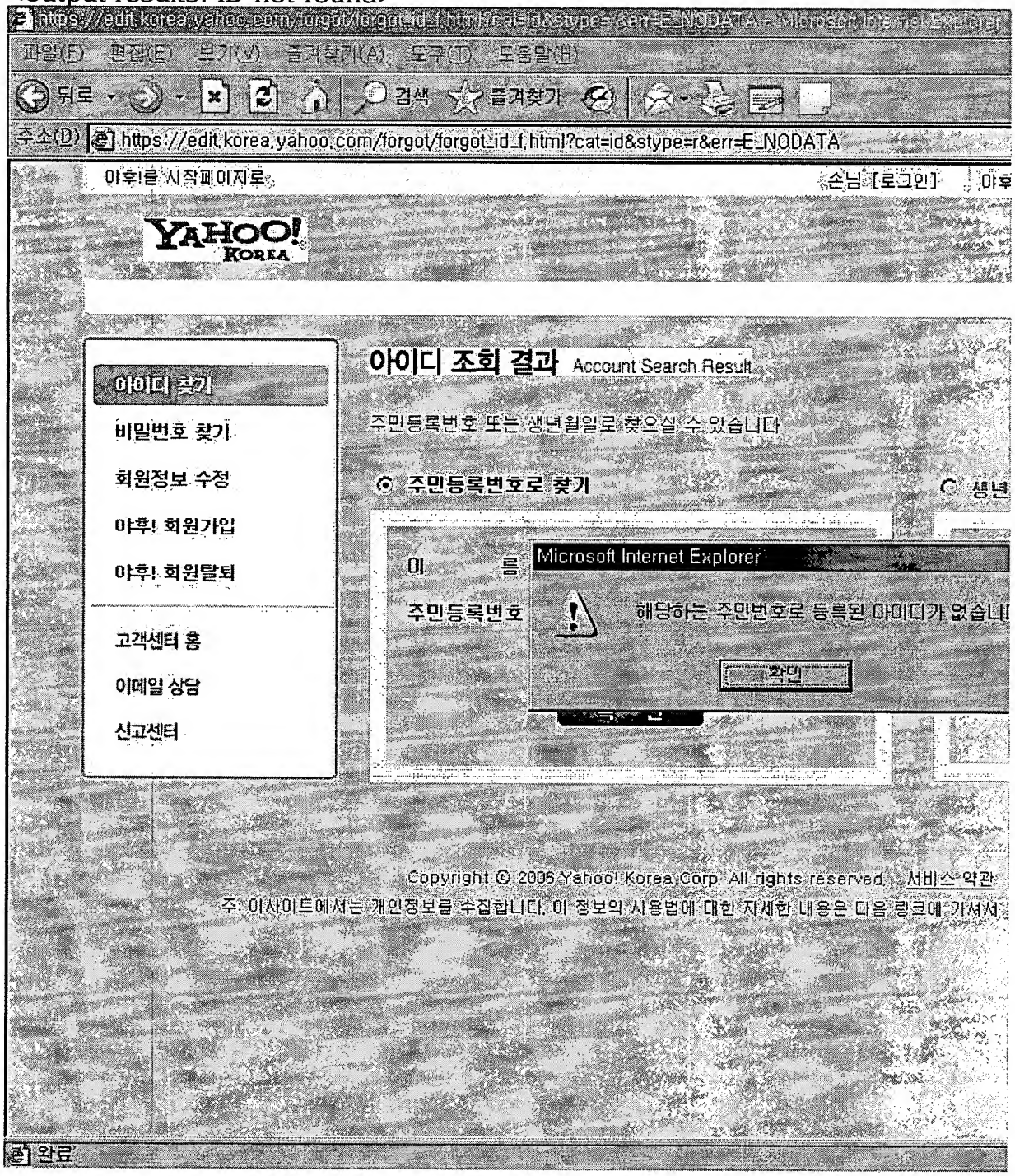

2007 - 06 - 12

(2) Search from www.empas.com
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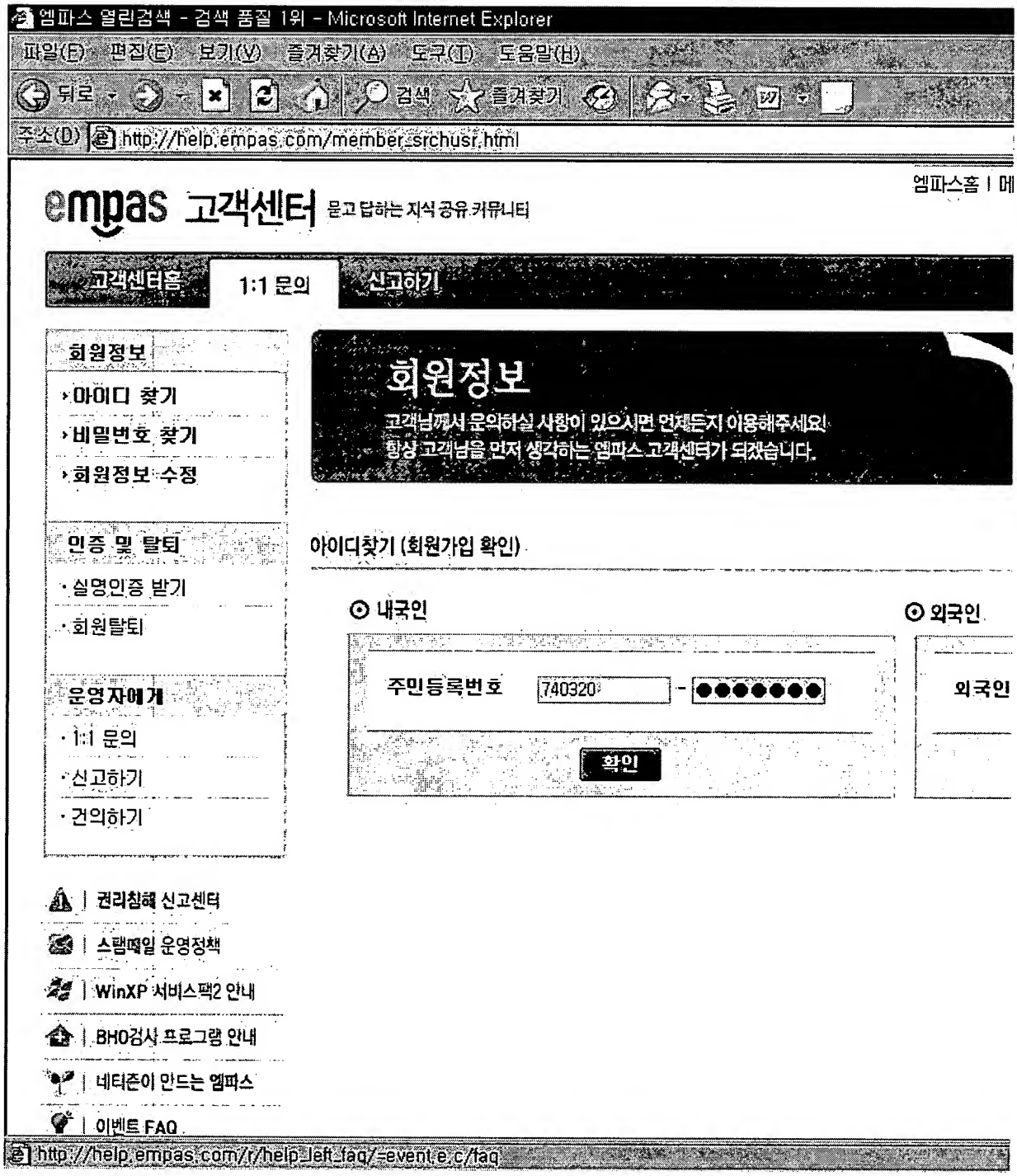

2007-06-12

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2007 - 06 - 12

(3) Search from www.daum.net
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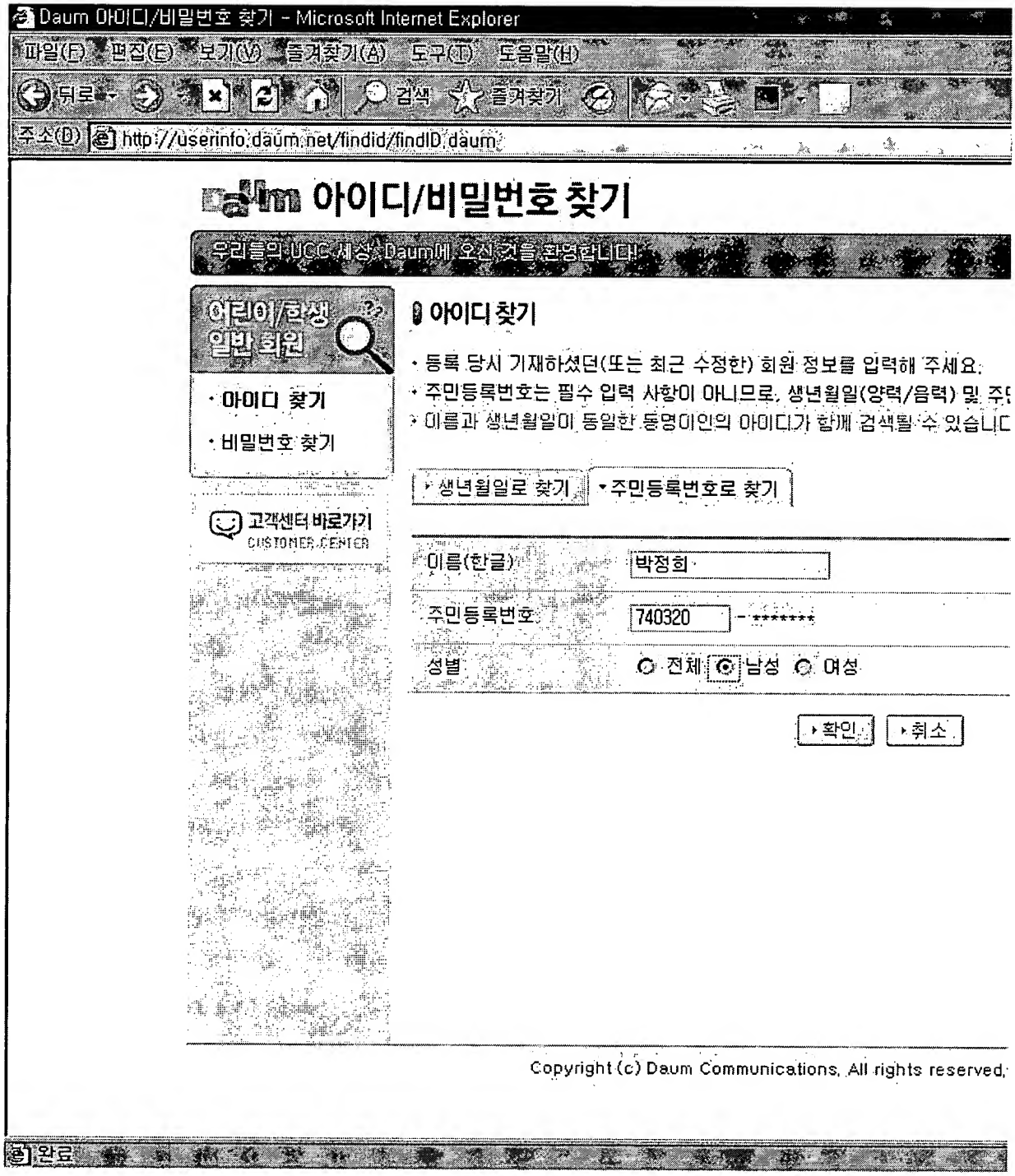

2007-06-12

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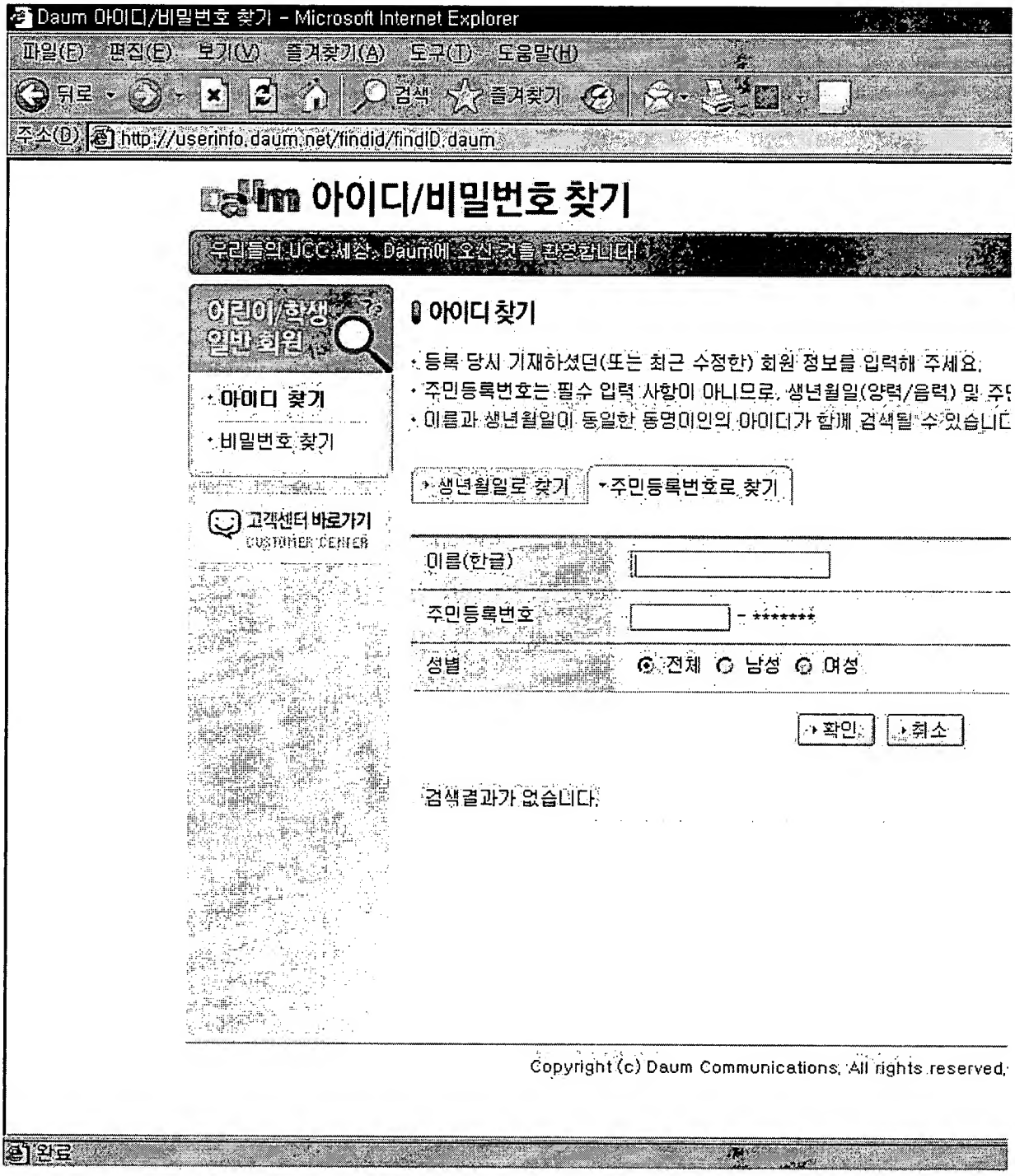

(4) Search from www.korea.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

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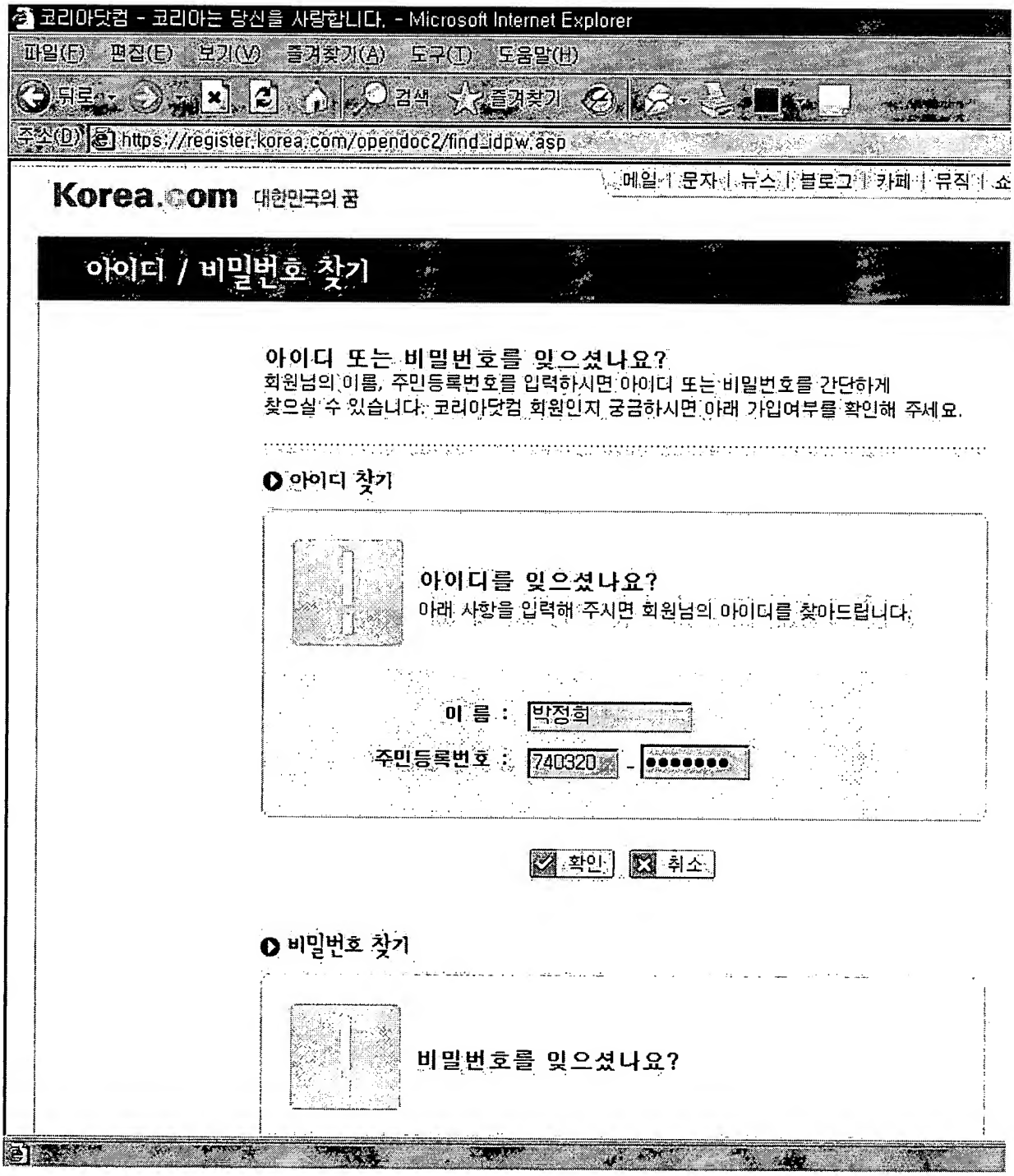

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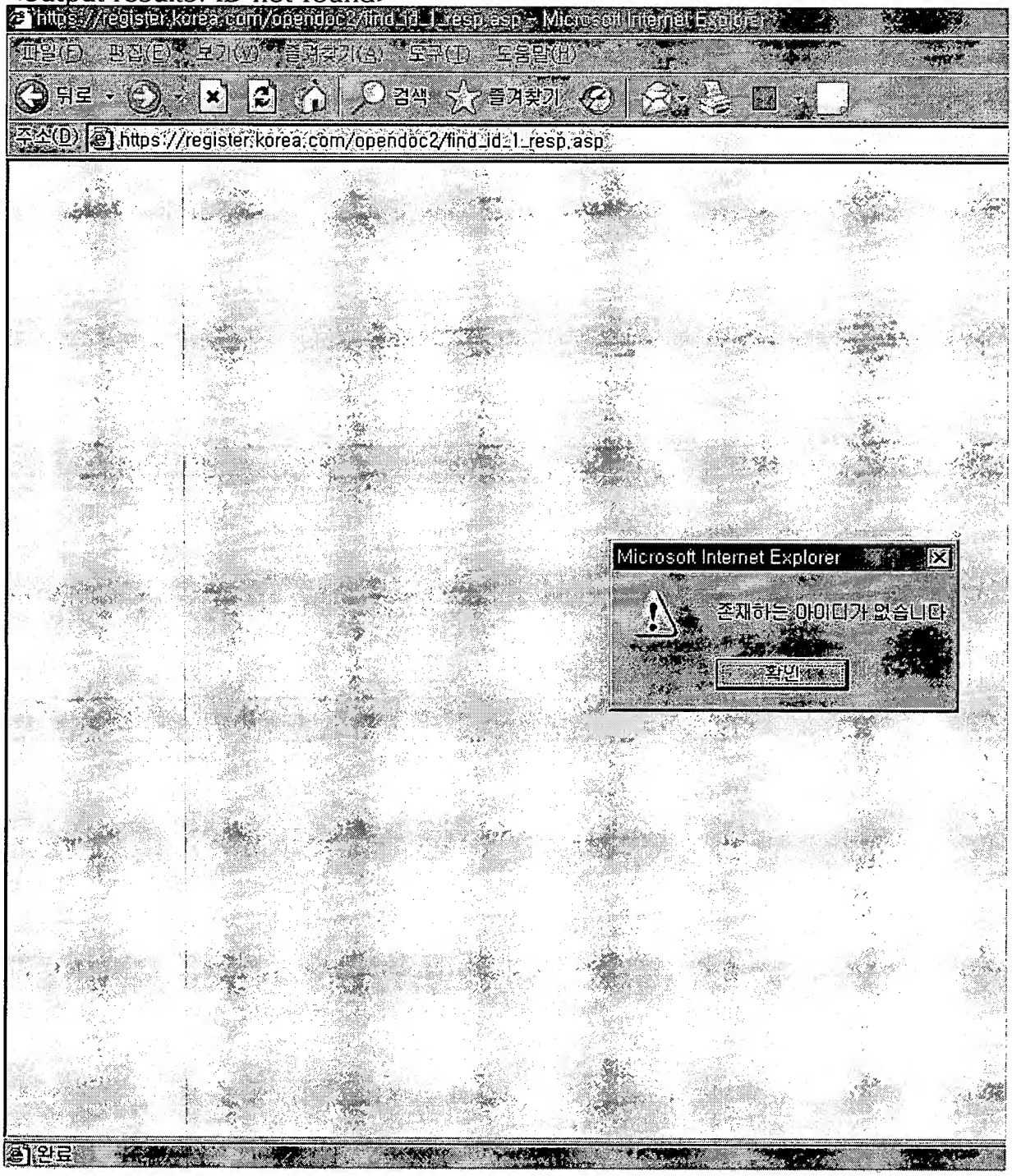

2007 - 06 - 12

(5) Search from www.nate.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

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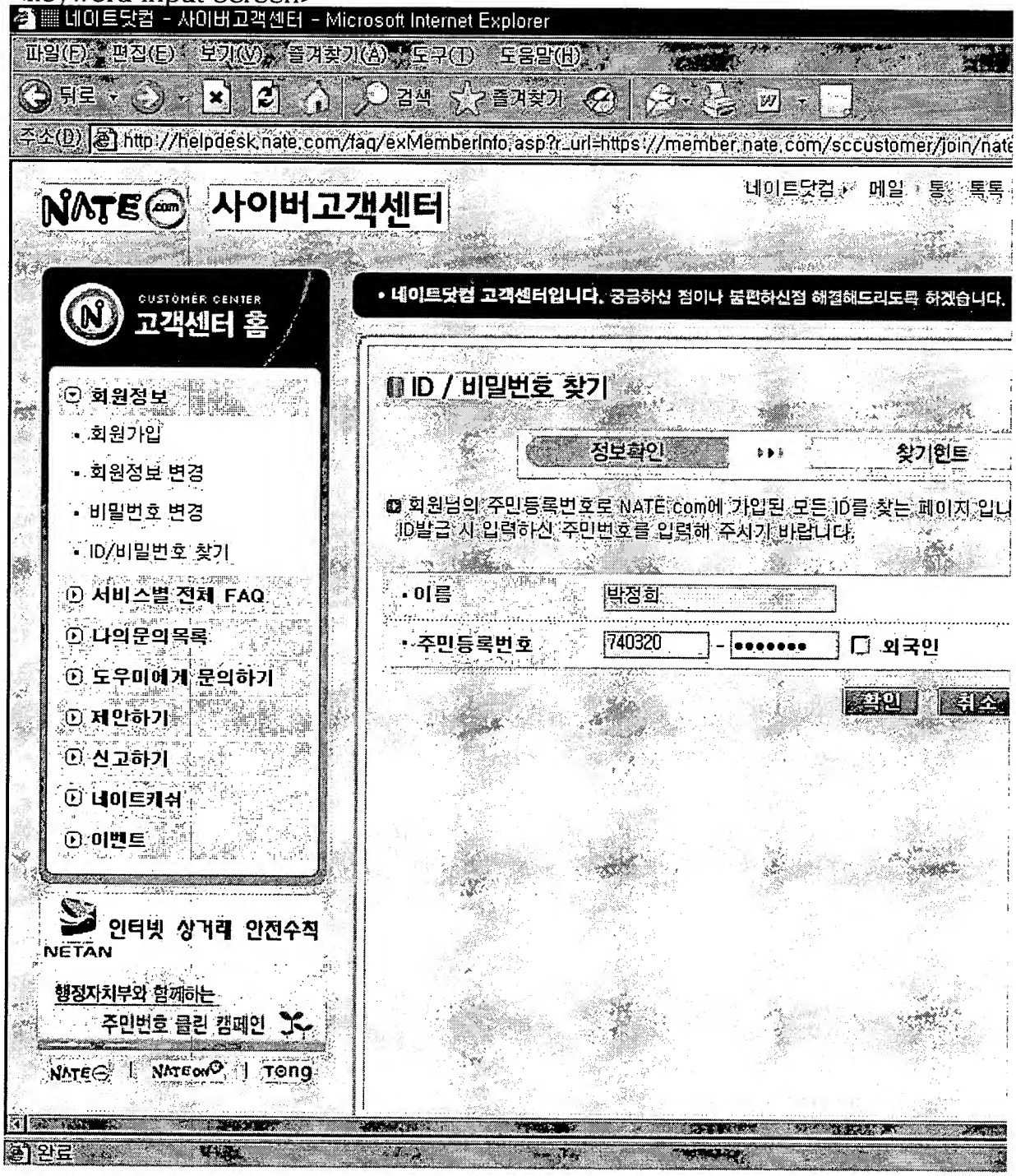

2007-06-12

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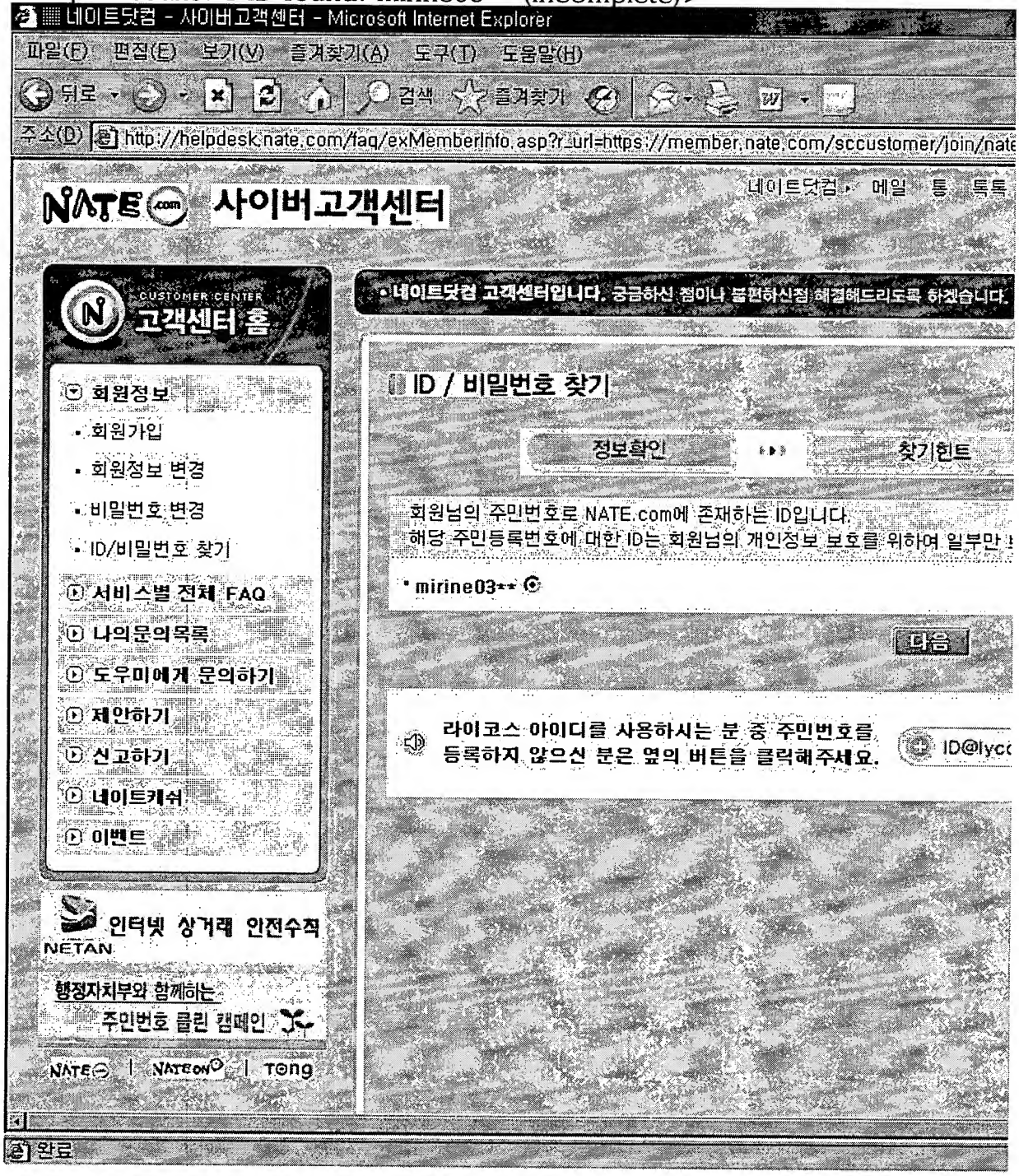

2007 - 06 - 12

(6) Search from www.cyworld.co.kr
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

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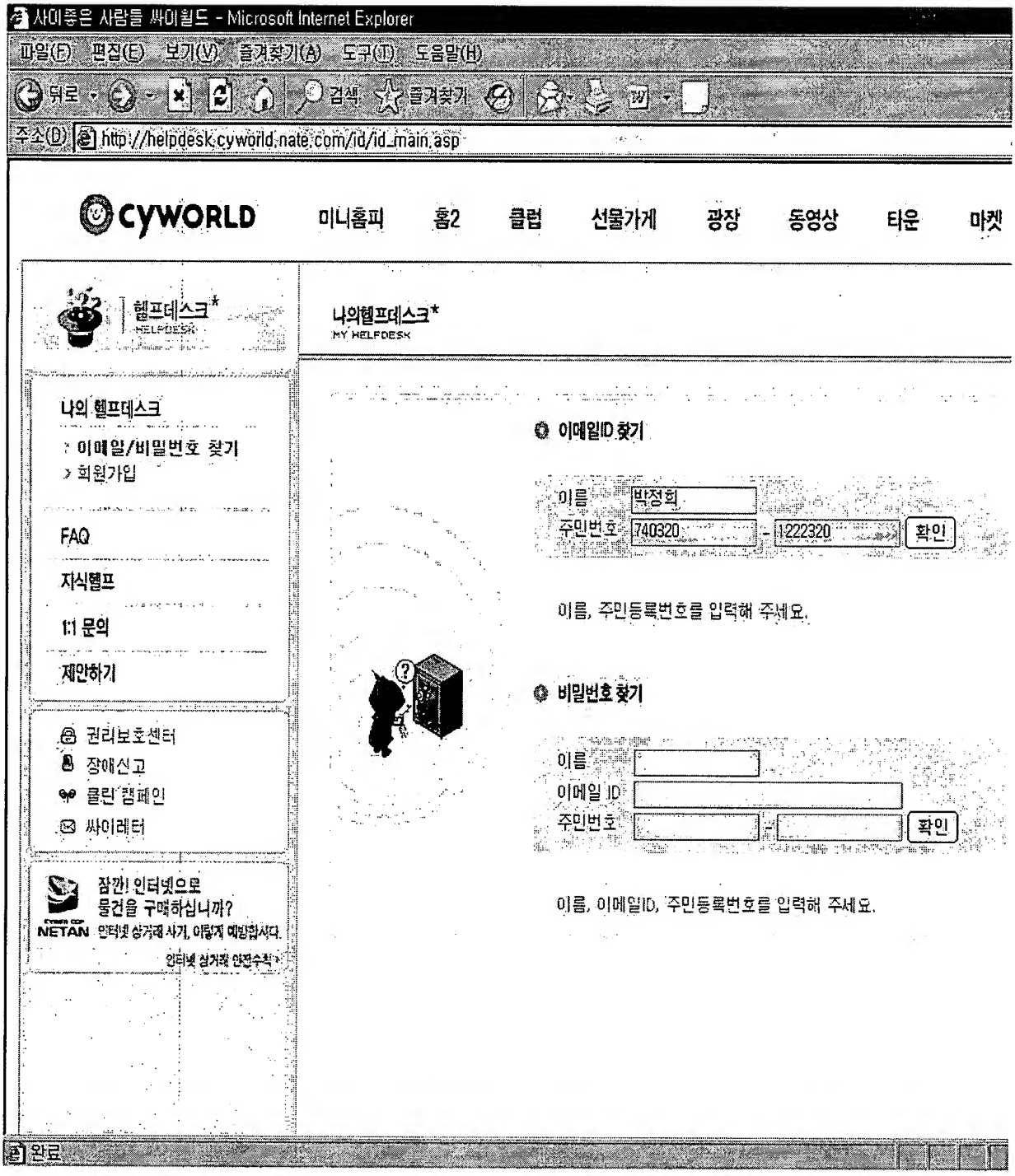

2007-06-12

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2007 - 06 - 12

(7) Search from www.paran.com
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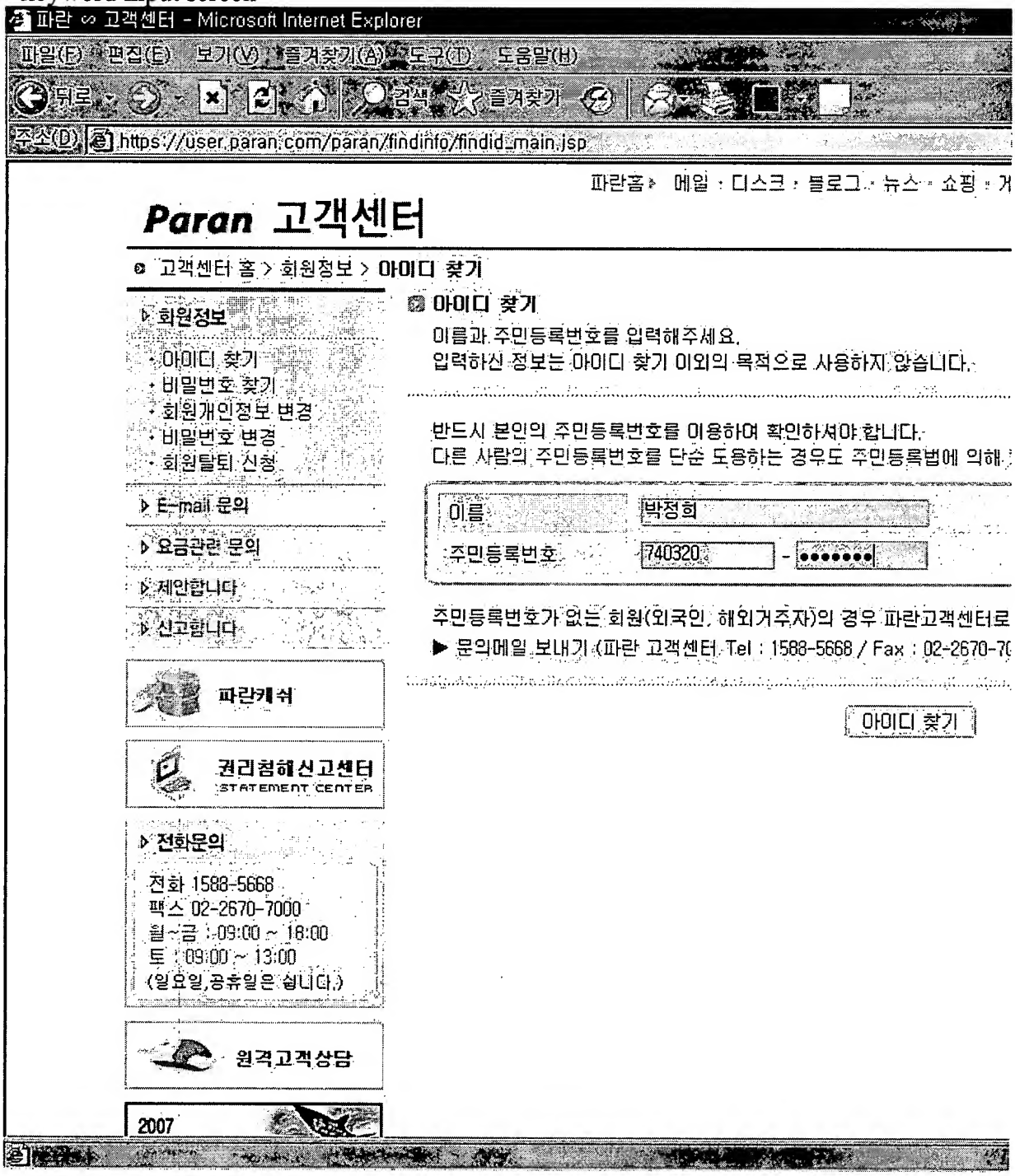

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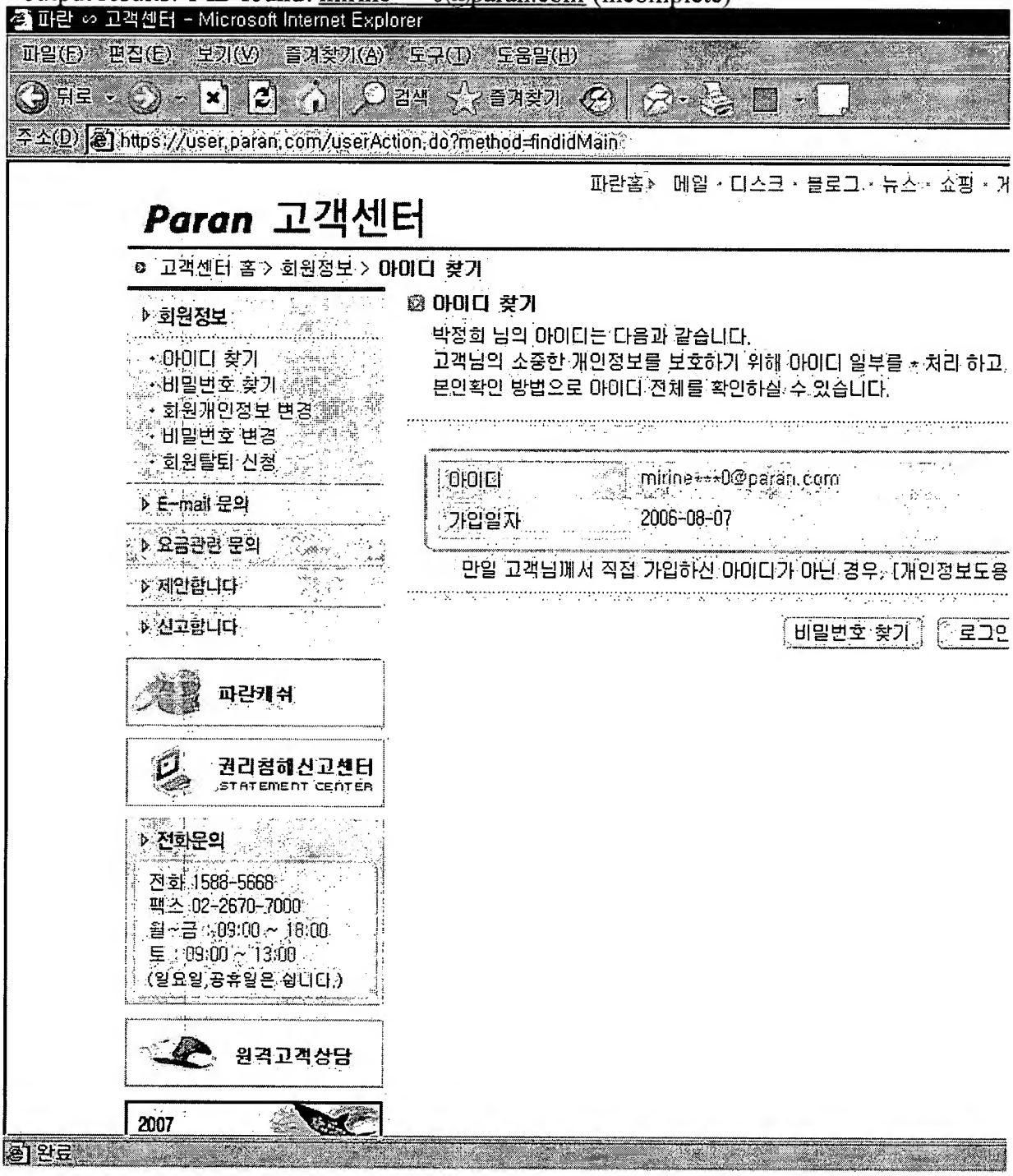
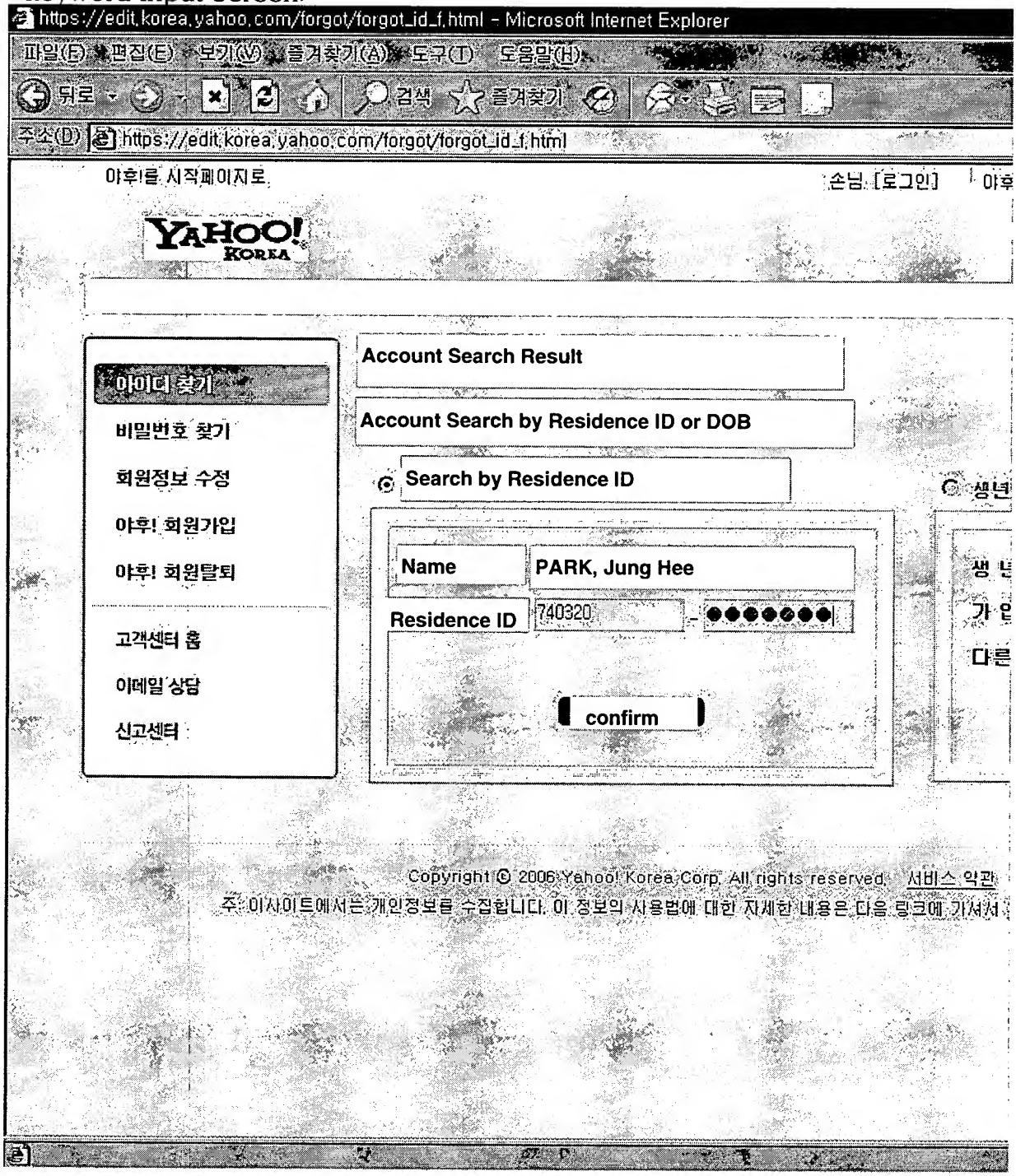
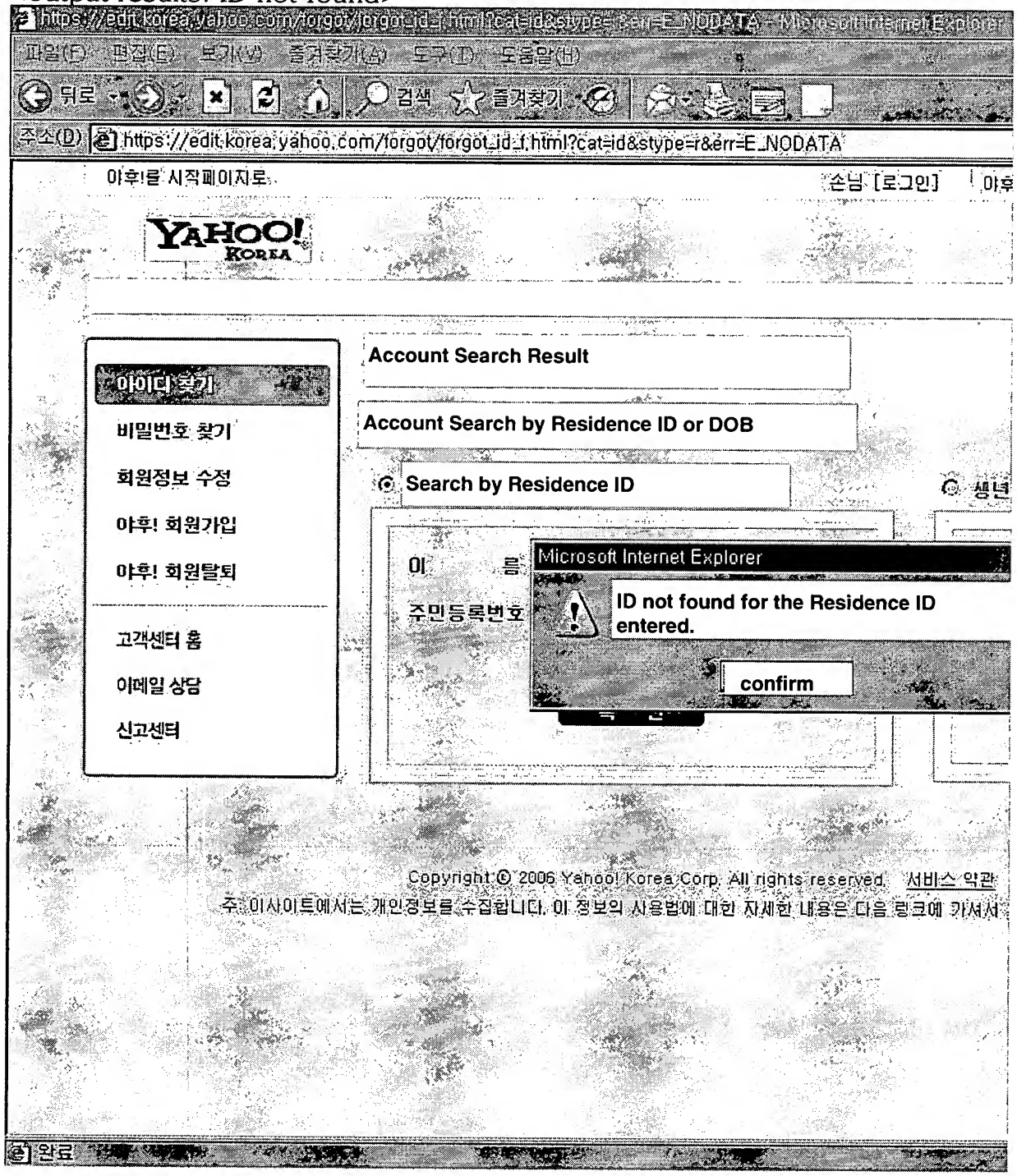


(1) Search from www.yahoo.co.kr
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



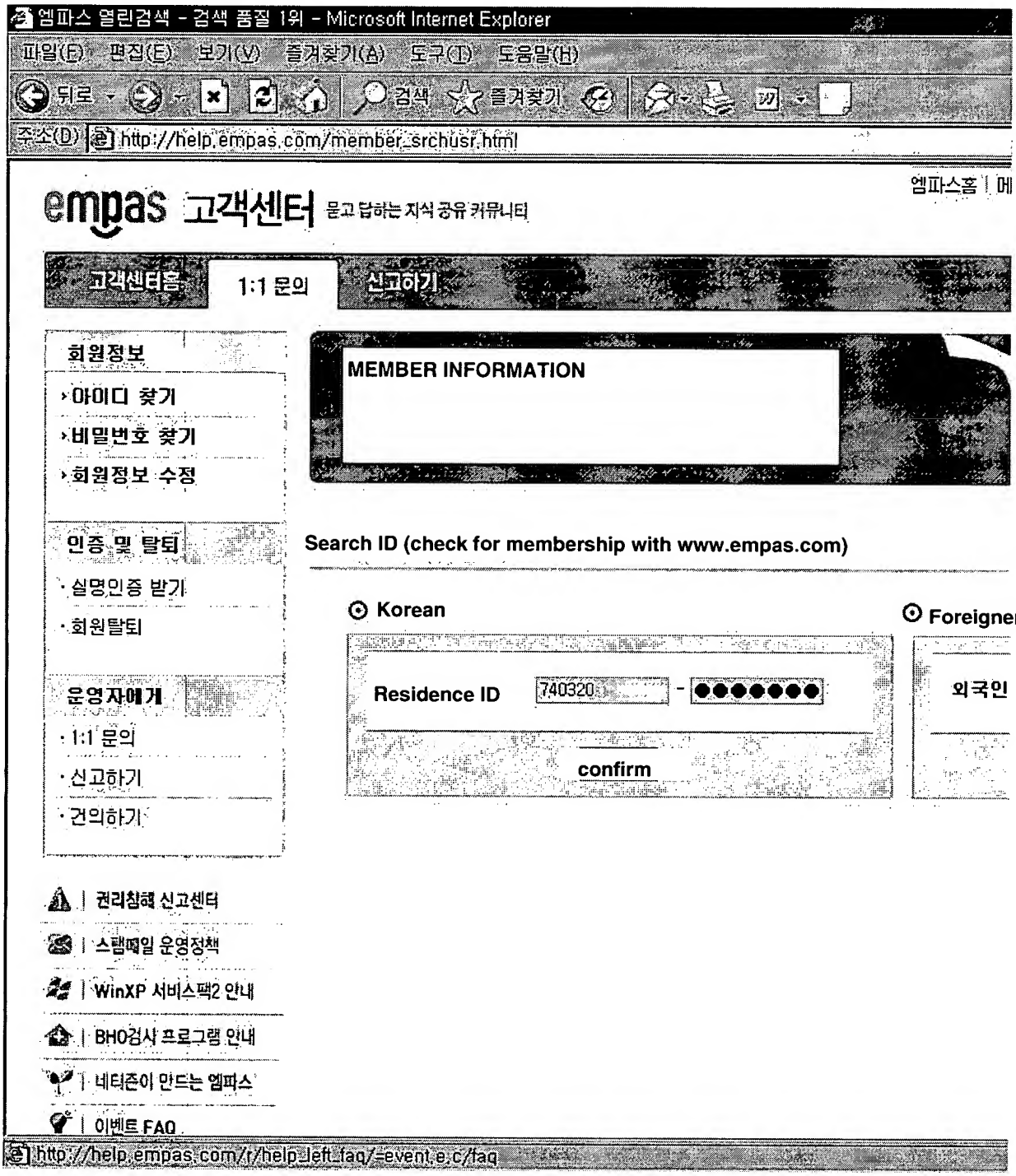
<output results: ID not found>



2007 - 06 - 12

(2) Search from www.empas.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



2007-06-12

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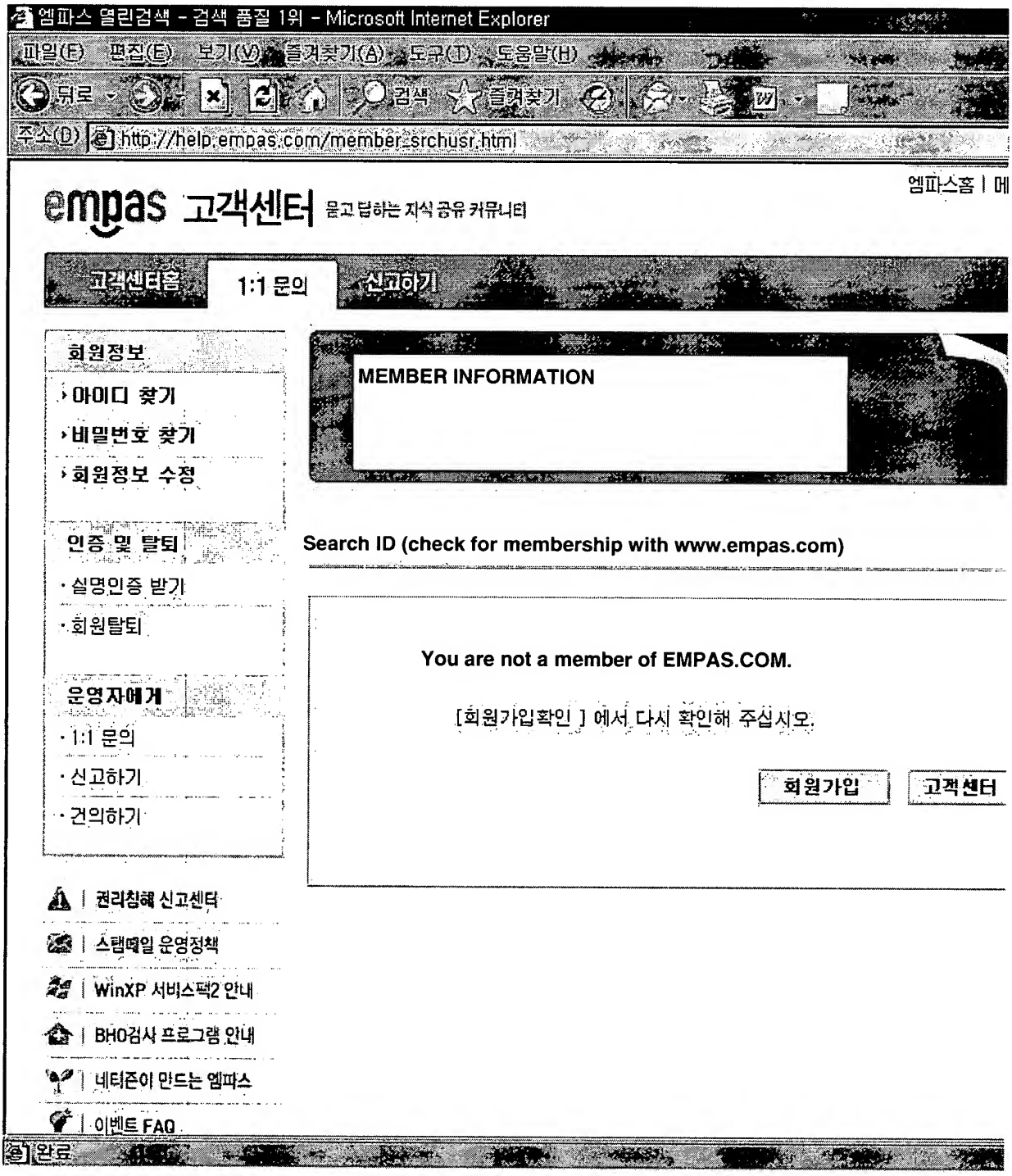
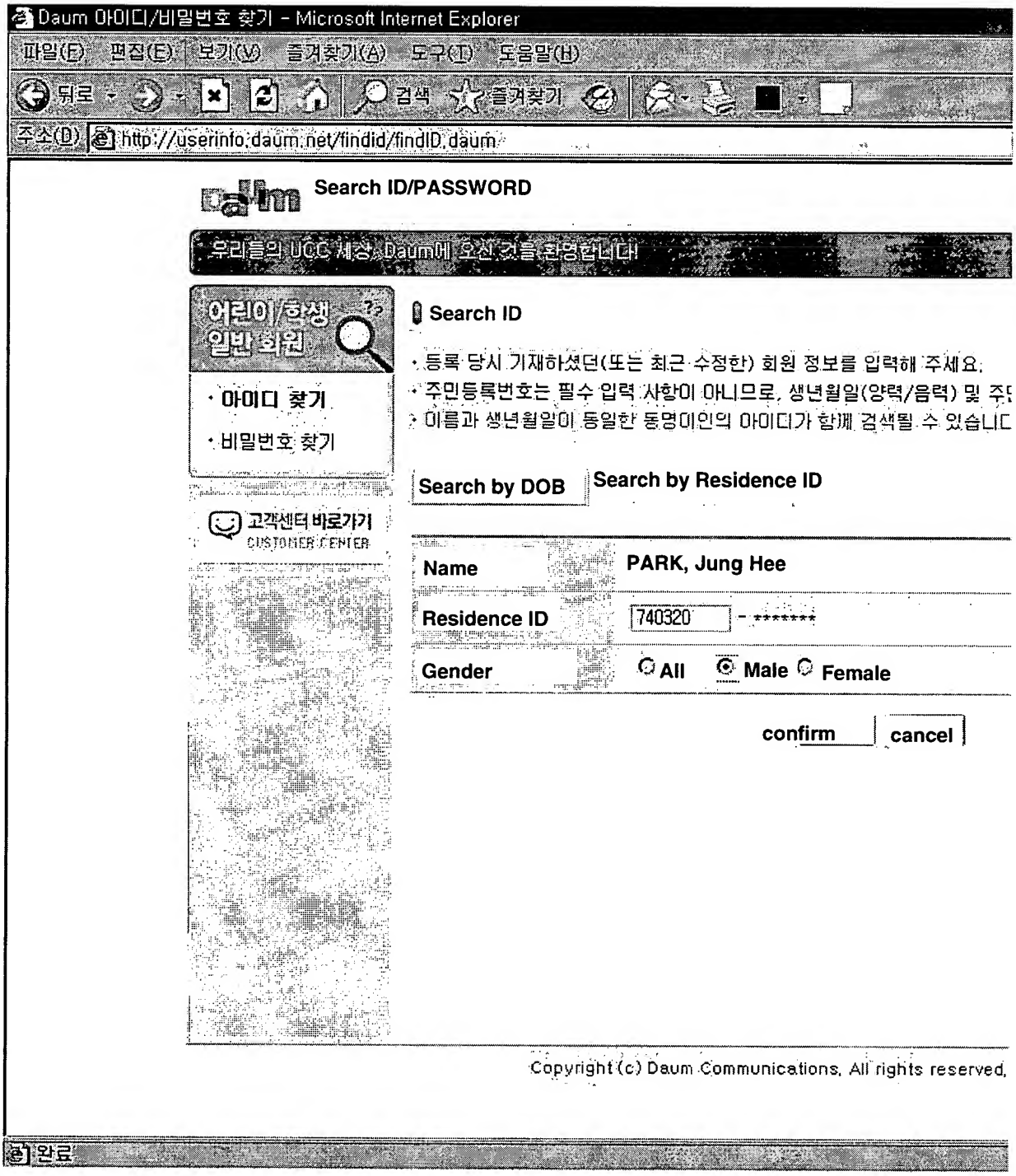


2007 - 06 - 12

(3) Search from www.daum.net
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



2007-06-12

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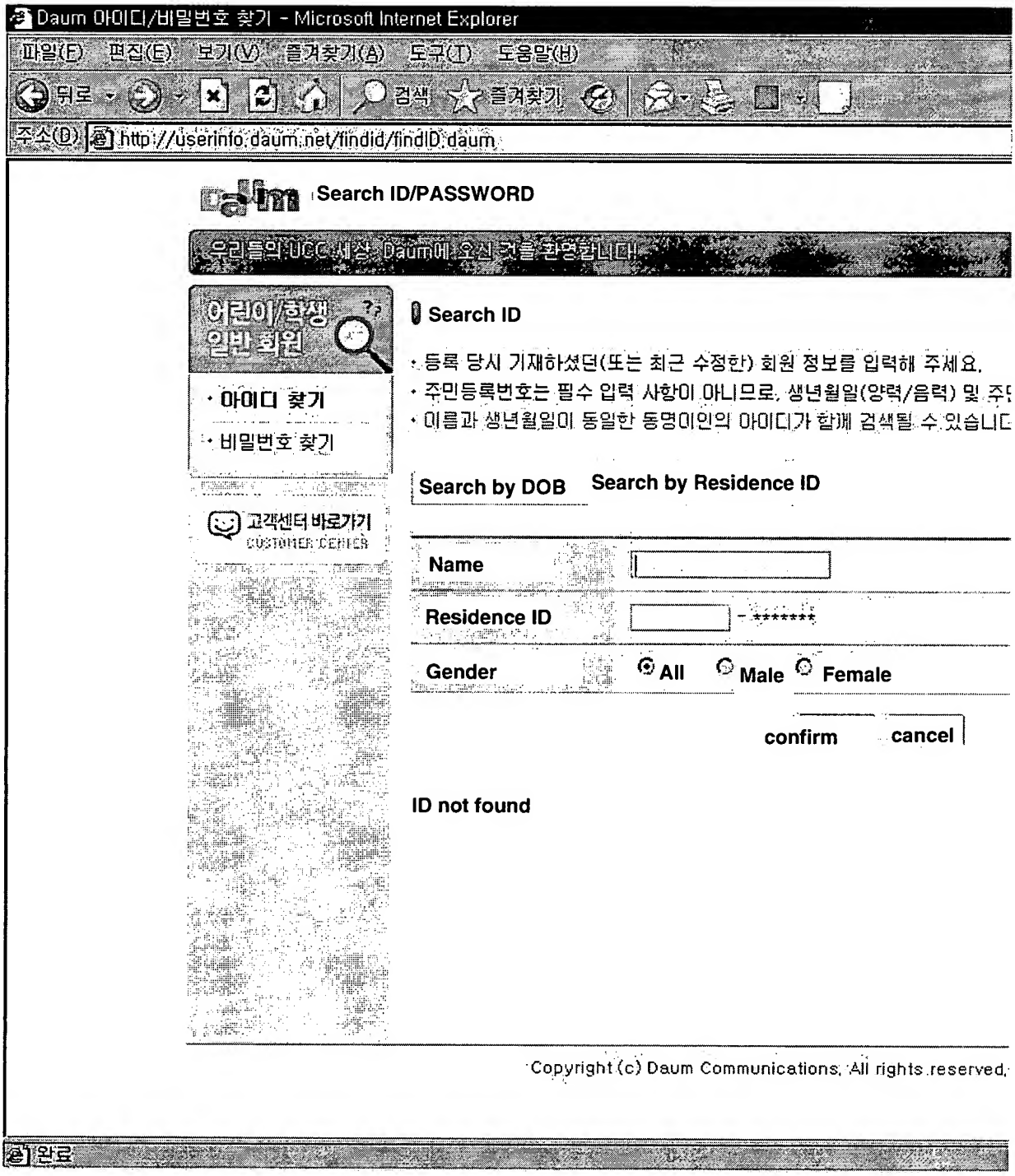
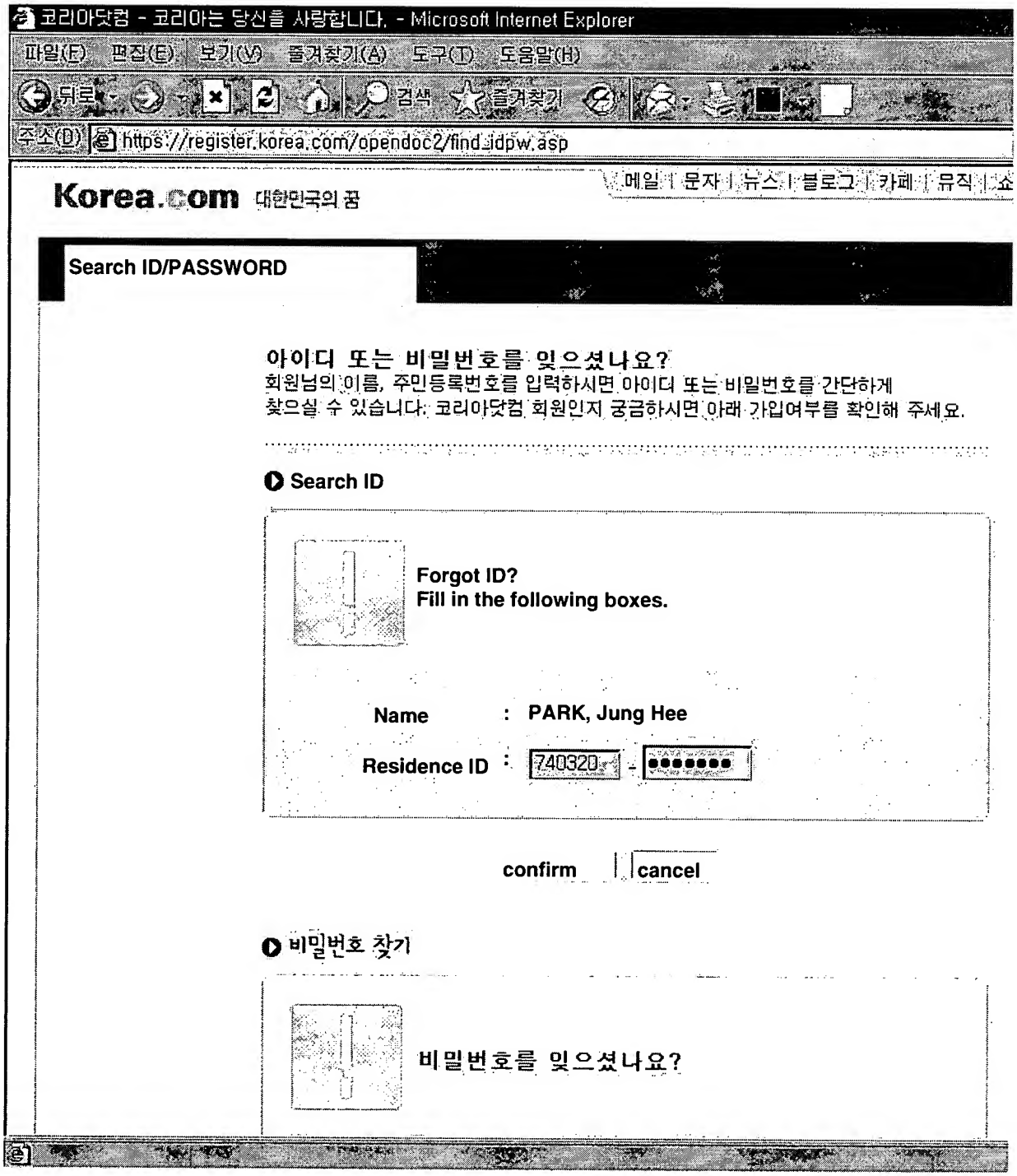


2007-06-12

(4) Search from www.korea.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



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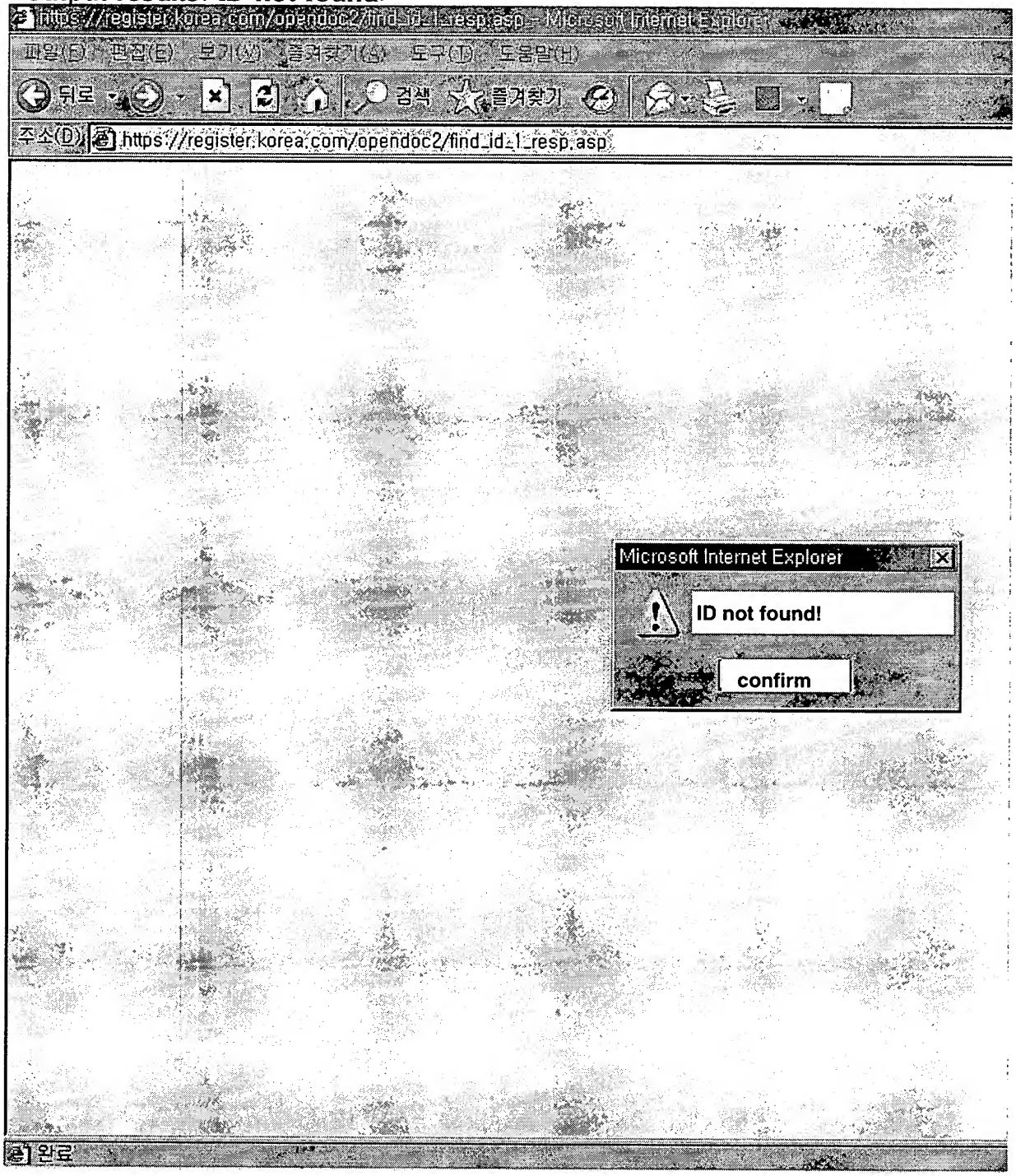
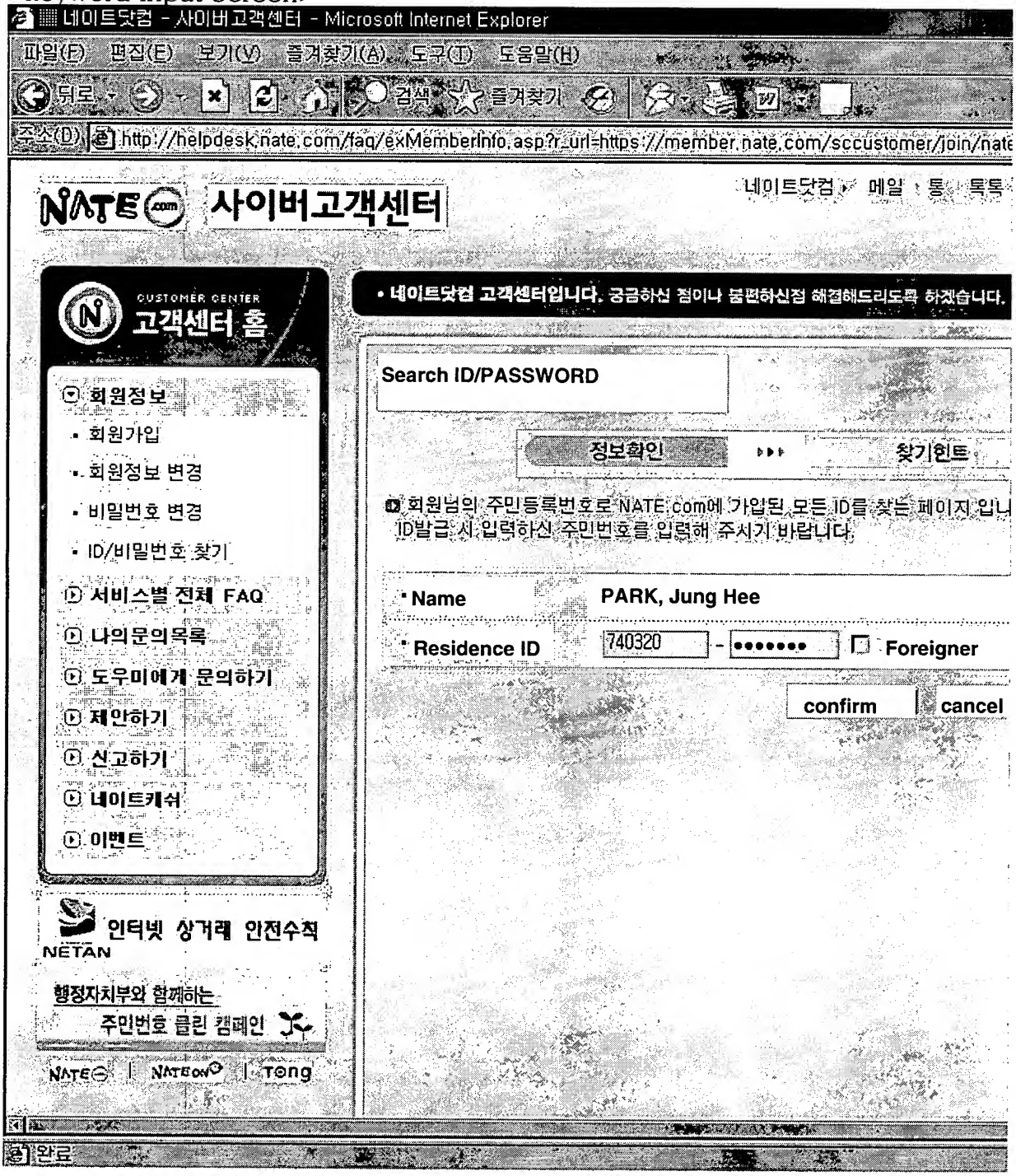


2007 - 06 - 12

(5) Search from www.nate.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



2007-06-12

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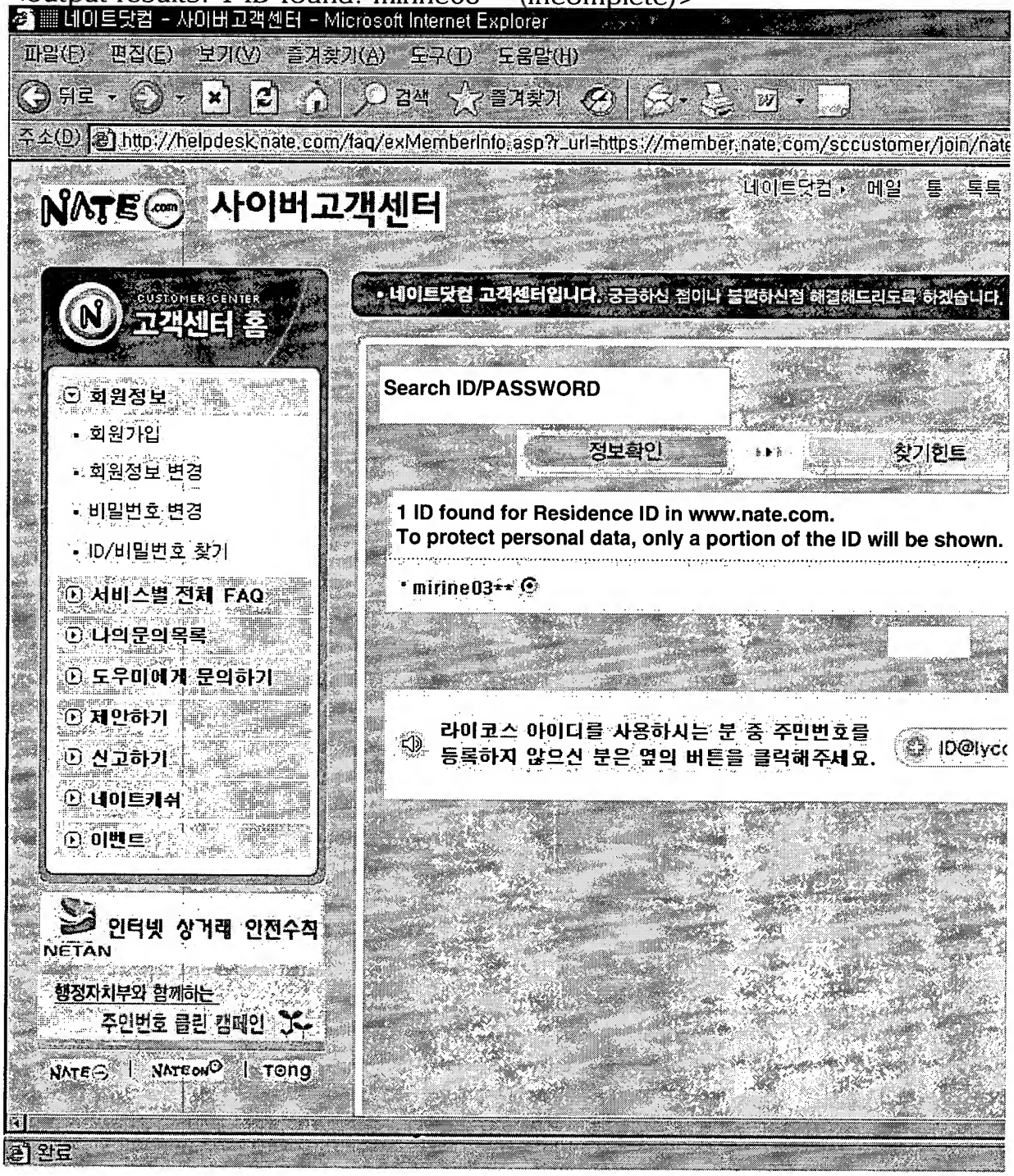
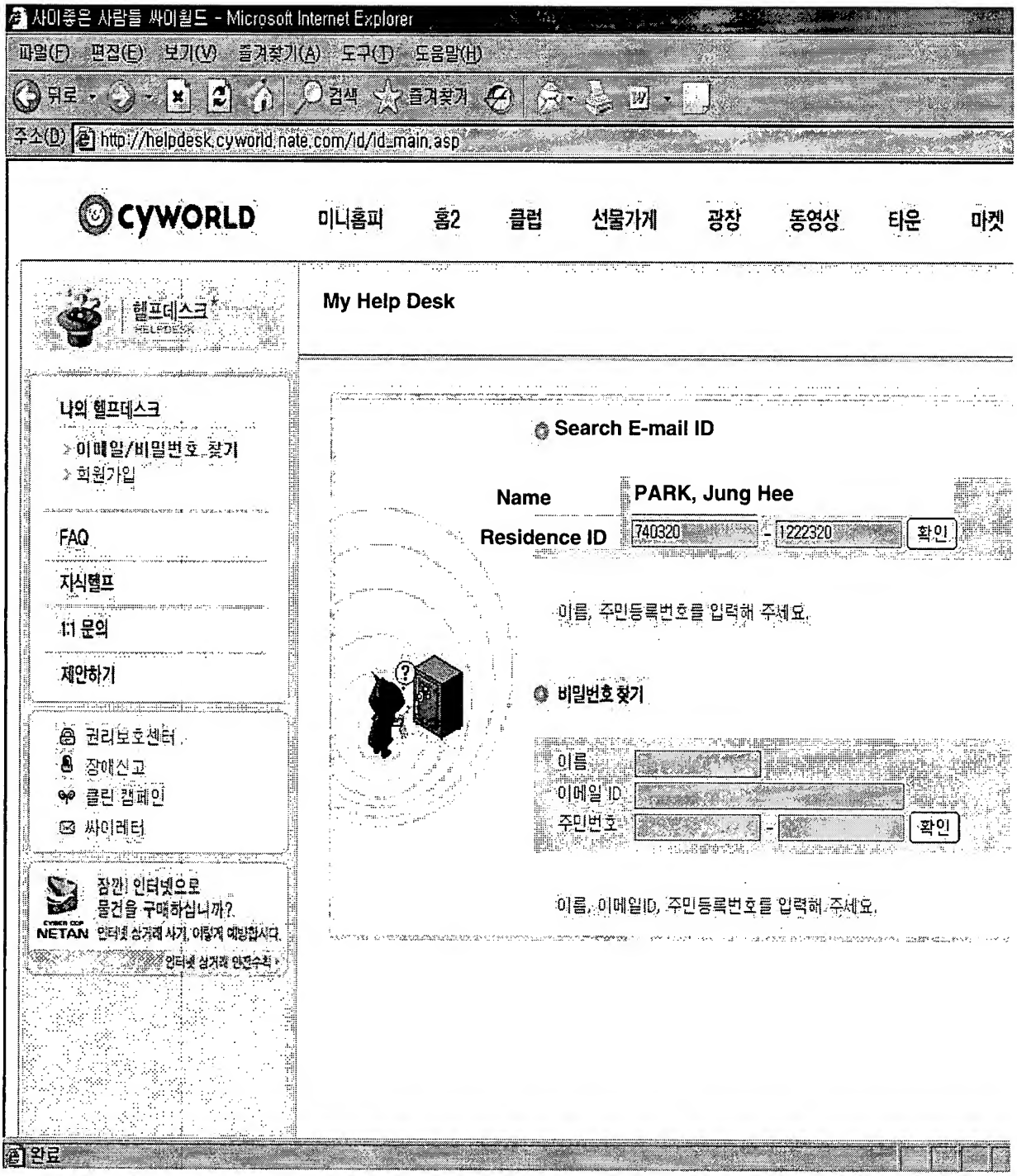


2007 - 06 - 12

(6) Search from www.cyworld.co.kr
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



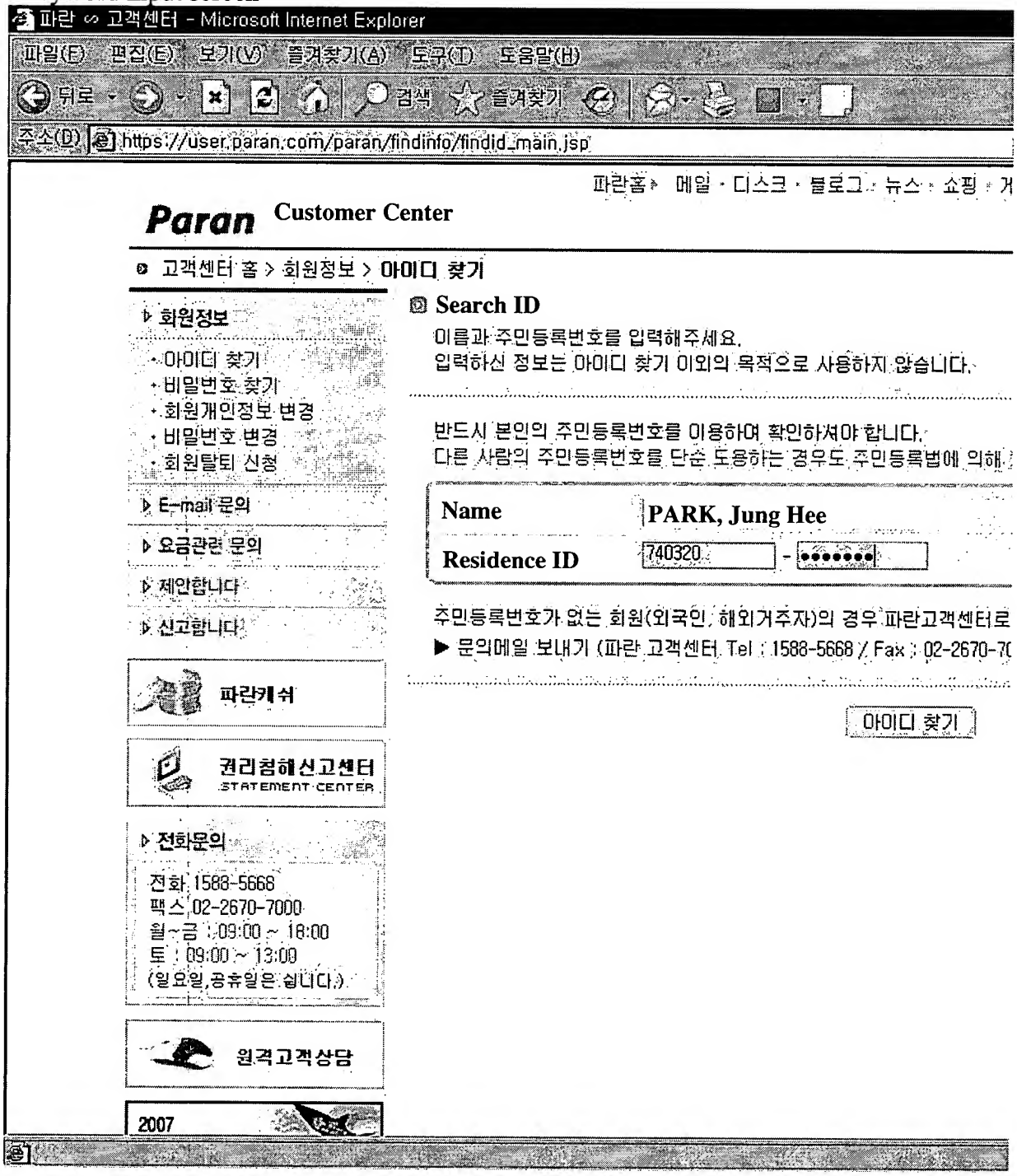
2007-06-12

<output results: 1 complete ID found (goinha@hanmail.net)>

2007-06-12

(7) Search from www.paran.com
Web-mail account search: keywords "PARK, Jung Hee in Korean" & "740320-1222320" (Residence ID)

<keyword input screen>



2007-06-12

<output results: 1 ID found: mirine***0@paran.com (incomplete) >

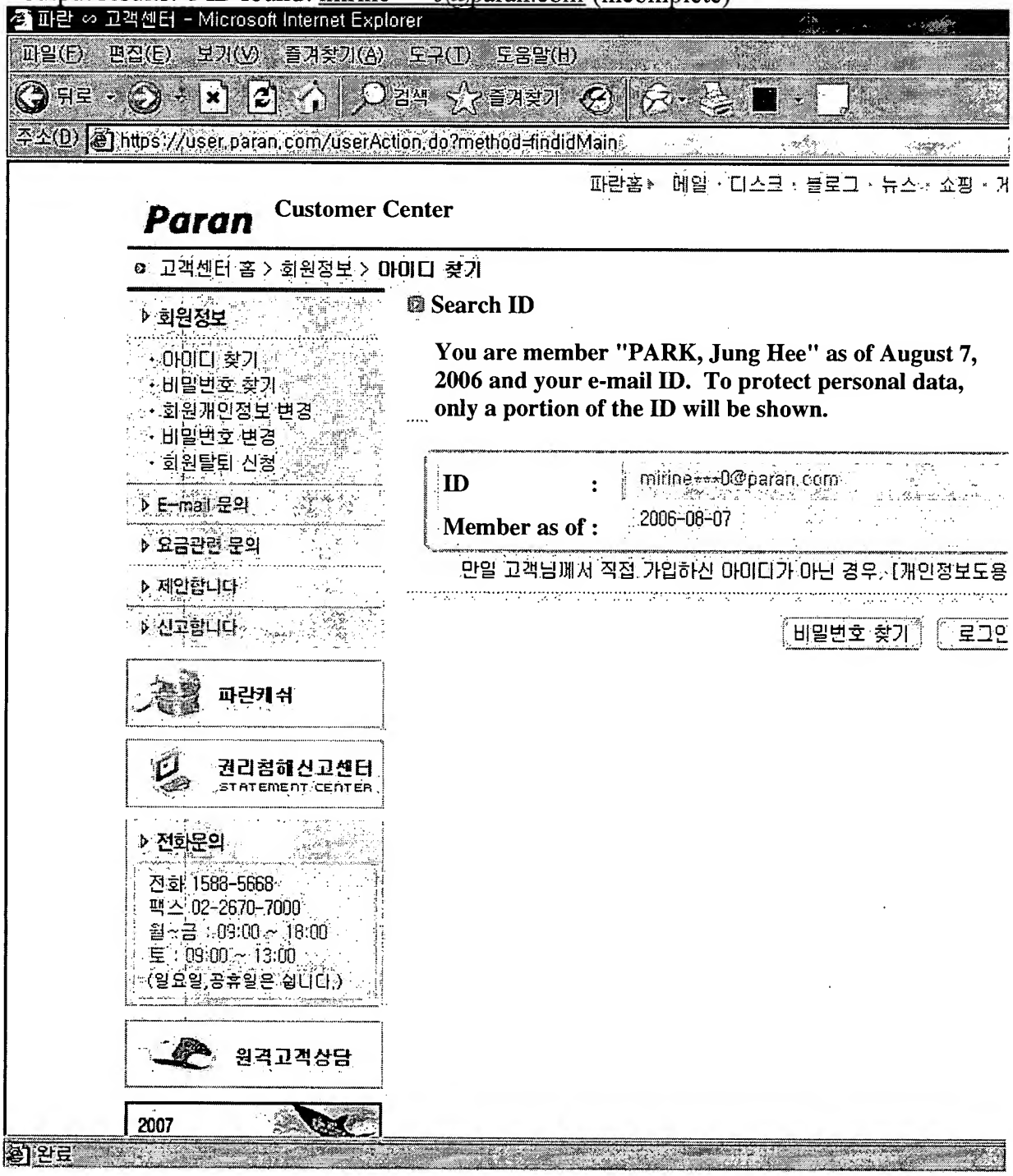


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EXHIBIT 4

zjwlim (Ji-Won Lim)

보낸 사람: zjwlim (Ji-Won Lim)
보낸 날짜: 2007년 2월 28일 수요일 오후 6:29
받는 사람: 'goinha@hanmail.net'; 'mirine0320@paran.com'
참조: jyklm1 (Joo-Young Klm)
제목: [박정희님] 김.장법률사무소입니다. (FE251546)
첨부 파일: FE251546-박정희-안내문,발명신고서.pdf; FE251546-박정희-서명서류.pdf; 05-500-B-Specification.pdf

수 신 : 박정희 님
경기도 이천시 부발읍 아미리 산 136-1 (우. 467-860)
제 목 : 미국 특허 출원 제 10/585,586 호
당소 정리 번호 : FE251546

귀하의 사업에 무궁한 발전을 기원합니다.

당소는 유티스타콤 코리아 유한회사의 대리인인 김장법률사무소입니다.

귀하께서는 2002년도에 현대전자산업 주식회사/현대시스콤 재직 중에 개발하신 아래의 발명에 대한 권리를 당시 소속회사의 직무발명 양도규정에 따라 소속회사에 양도하였으며, 현재 이 발명에 대해 특허를 받을 수 있는 권리는 귀하의 소속회사로부터 당소의 의뢰인인 유티스타콤 코리아 유한회사로 이전되어 있는 상태에 있습니다. 이 발명에 대하여는 한국 특허출원을 하고 이어서 현재 미국 특허출원을 진행 중에 있는데, 미국의 특허제도에 따르면 출원시 발명자가 출원인이 되어야 하기 때문에 미국 특허청은 특허를 받을 수 있는 권리가 당소의 의뢰인에게 있다 하더라도 첨부된 바와 같은 서류에 출원인으로서 발명자가 직접 서명한 후 이를 제출하도록 요구하고 있습니다.

첨부된 서류 중 양도증(assignment)과 관련해서는, 귀하께서 이미 이 발명에 대한 권리를 양도한 상태이기 때문에 첨부된 양도증은 이를 확인하는 절차에 불과하며 새로이 무언가를 양도하는 것은 아님을 알려드립니다. 발명자 선언서(declaration)는 귀하께서 이 발명의 발명자임을 선서하는 내용으로 되어 있습니다.

이와 같은 사정으로 상기 서명서류 및 미국특허청에 제출된 명세서를 보내드리오니 검토 및 서명 후 당소로 반송하여 주시기를 부탁드립니다. 반송은 퀵서비스(착불) 등 귀하께서 편한 방법으로 아래의 당소 주소로 해 주시고 어떤 경우에든 당소에서 비용을 부담할 것이오니 비용 영수증 등도 함께 반송하여 주시면 감사하겠습니다.

문의사항이 있으시면 아래의 담당자 연락처로 연락주시기 바랍니다.

김.장법률사무소
변리사 김 주 영 (전화: 02-2122-3561)
과장 임 지 원 (전화: 02-2122-3838)

첨부물있음: 2006년 12월 1일자 당소서신 및 발명신고서
서명서류(발명자선언서 및 양도증)
미국특허청에 제출된 명세서

Ji-Won Lim
zjwlim@ip.kimchang.com
직통 : (02) 2122 3838

金·張 法律事務所
서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
전화: (02) 764-8855 / (02) 2122-3900 (대표)
팩스: (02) 741-0328 / (02) 745-5954 / (02) 763-7434

2007-02-28

위 전자우편에 포함된 정보는 위에 기재된 수신인만을 위해 발송되는 것으로서 보안을 유지해야 하는 정보 및 법률상 또는 다른 사유로 인하여 공개가 금지된 정보가 들어 있을 수 있습니다. 귀하가 이 전자우편의 지정 수신인이 아니면 이를 무단으로 보유, 전송, 배포할 수 없으며, 일부의 내용이라도 공개, 복사해서는 안됩니다. 그러므로, 잘못 수신된 경우에는 즉시 전화 또는 전자우편 주소(all@ip.kimchang.com)로 연락하여 주시고, 원본 및 사본과 그에 따른 첨부 문서를 모두 삭제하여 주시기 바랍니다.

[Translation]

[E-mail to the inventor Jung Hee PARK from K&C staff, Jiwon Lim]

From: zjwlim (Ji-Won Lim)
Date: February 28, 2007 6:29 PM
To: goinha@hanmail.net; mirine0320@paran.com
Cc: jykim1 (Joo-Young Kim)
Subject: [To. Mr. Jung Hee PARK] An announcement from Law offices of Kim & Chang (FE251546)
Attachment(s): FE251546-PJH-LETTER,INVENTION DISCLOSURE. pdf
FE251546-PJH –SIGNATURE DOCUMENTS. PDF
05-500-B-Specification.pdf

To: Mr. Jung Hee PARK
San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea
Re: U.S. Patent Application No. 10/585,586 (Our Ref. FE251546)

Dear Mr. Park,

We hope your business is prospering.

We are attorneys for a law firm, Kim & Chang, and contacting you on behalf of our client UTStarcom Korea Limited.

You had assigned your invention as identified on the next page to your former company in 2002, which was conceived when you were working for Hyundai Electronics Industries, Co., Ltd./ Hyundai Syscomm, Inc. under the provisions of the employee's invention compensation policy of the company. Therefore, the right to receive patent for the invention was transferred to the former company. Recently, the right to receive patent was transferred to our client, UTStarcom Korea Limited, hereinafter referred to as "UTSK" from your former company. With respect to this invention, a Korean patent application was filed and its counterpart U.S. patent application has recently been filed with the U.S. Patent and Trademark Office. According to the U.S. Patent law, the inventor is only entitled to be an applicant for a patent application. Therefore, although the right to receive patent has been transferred to our client, UTSK, the U.S. Patent and Trademark Office requires filing of documents as enclosed herewith which must be signed by the inventor.

With regard to the assignment, please be informed that signing the enclosed assignment does not mean that you newly transfer something another to somebody, it merely means

[Translation]

confirming that you had already assigned the right to receive patent in 2002. As for the Declaration, the signing the declaration means that you are declaring that you are the true and sole inventor of this invention.

As explained above, I enclose herewith these signature documents together with the specification as filed with the U.S. Patent and Trademark Office. Please review them and sign and date the marked portions, and return them to us via courier, registered mail or whatever is convenient for you. Any costs to be incurred in this connection are surely responsible to our side. Please send us any receipts for payment in return.

If you have any other questions, please contact the person as below.

Law Offices of Kim & Chang
Patent Attorney Joo-Young Kim (Tel. 02-2122-3561)
Assistant Manager Jiwon Lim (Tel. 02-2122-3838)

金·張 法律事務所
KIM & CHANG

서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
전화: (02) 764-8855 / 2122-3900 Fax: (02) 745-5954 / 741-0328 / 763-7434
E-Mail: all@ip.kimchang.com

2006년 12월 1일

수 신 : 박 정 희 님
경기도 이천시 부발읍 아미리 산 136-1 (우. 467-860)

제 목 : 미국 특허청 제출용 서명서류 송부의 건 (U.S. Serial No. 10/585,586)
당소 정리 번호 : GP048360 (FE251546)

귀하의 사업에 무궁한 발전을 기원합니다.

당소는 유티스타콤 코리아 유한회사의 대리인인 김&장 특허법률사무소 입니다.

귀하께서는 2002년도에 현대전자산업 주식회사/현대시스콤 재직 중에 개발하신 아래의 발명에 대한 권리를 당시 소속회사의 직무발명 양도규정에 따라 소속회사에 양도하였으며, 현재 이 발명에 대해 특허를 받을 수 있는 권리는 귀하의 소속회사로부터 당소의 의뢰인인 유티스타콤 코리아 유한회사로 이전되어 있는 상태에 있습니다. 이 발명에 대하여는 한국 특허출원을 하고 이어서 현재 미국 특허출원을 진행 중에 있는데, 미국의 특허제도에 따르면 출원시 발명자가 출원인이 되어야 하기 때문에 미국 특허청은 특허를 받을 수 있는 권리가 당소의 의뢰인에게 있다 하더라도 첨부된 바와 같은 서류에 출원인으로서 발명자가 직접 서명한 후 이를 제출하도록 요구하고 있습니다.

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이와 같은 사정으로 첨부 서류를 보내드리오니 서명 후 당소로 반송하여 주시기를 부탁드립니다. 반송은 퀵서비스(착불) 등 귀하께서 편한 방법으로 아래의 당소 주소로 해 주시고 어떤 경우에든 당소에서 비용을 부담할 것이오니 비용 영수증 등도 함께 반송하여 주시면 감사하겠습니다.

2006.12

이 우편물은 2006 12 01 제 01026739 호에 의하여 내용증명우편물로 발송하였음을 증명함
광화문 우체국장

반송 주소: 서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 김.장특허법률사무소
(우편번호 110-786)

발명의 명칭: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

-담당자: 김 주 영 변리사 / 윤 지 홍 변리사
-전화: 02-2122-3561 / 02-2122-3515
-E-mail: jykim1@ip.kimchang.com

변리사 윤 지 홍

첨부있음.

[Translation]

金·張 法律事務所
KIM & CHANG

Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea
Telephone: (822) 764-8855 / 2122-3900 Fax: (822) 741-0328 / 745-5954 / 763-7434
E-Mail: all@ip.kimchang.com

December 1, 2006

To. PARK, Jung Hee
San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea

Re. Declaration and Power of Attorney and Assignment to be filed with U.S. Patent and Trademark Office (U.S. Serial No. 10/585,586)
K&C Ref.: GP048360/FE251546

I hope your business is prospering.

I am a patent attorney for a law firm, Kim & Chang, and contacting you on behalf of my client UTStarcom Korea Limited.

You had assigned your invention as identified on the next page to your former company in 2002, which was conceived when you were working for Hyundai Electronics Industries, Co., Ltd./ Hyundai Syscomm, Inc. under the provisions of the employee's invention compensation policy of the company. Therefore, the right to receive patent for the invention was transferred to the former company. Recently, the right to receive patent was transferred to our client, UTStarcom Korea Limited, hereinafter referred to as "UTSK" from your former company. With respect to this invention, a Korean patent application was filed and its counterpart U.S. patent application has recently been filed with the U.S. Patent and Trademark Office. According to the U.S. Patent law, the inventor is only entitled to be an applicant for a patent application. Therefore, although the right to receive patent has been transferred to our client, UTSK, the U.S. Patent and Trademark Office requires filing of documents as enclosed herewith which must be signed by the inventor.

With regard to the assignment, please be informed that signing the enclosed assignment does not mean that you newly transfer something another to somebody, it merely means confirming that you had already assigned the right to receive patent in 2002. As for the Declaration, the signing the declaration means that you are declaring that you are the true and sole inventor of this invention.

GWANG WHA MOON POST OFFICE- CONTENTS CERTIFIED MAIL CERTIFICATE NO. 07026739, 2006-12-01

[Translation]

As explained above, I enclose herewith these documents. Please sign and date the marked portions and return them to us via courier, registered mail or whatever is convenient for you. Any costs to be incurred in this connection are surely responsible to our side. Please send us any receipts for payment in return.

Return Address: Hungkuk Life Insurance Building, 9F, 226 Sinmunno 1-ga, Jongno-gu, Seoul 110-786, Korea

Title of Invention: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

-Contact Person: Attorney Joo-Young Kim /
Attorney Jee Hong YOON
-Telephone: 02-2122-3561 / 02-2122-3515
-E-mail: jykim1@ip.kimchang.com

Attorney Jee Hong YOON (seal)

Enclosure(s)

HYUNDAI SYSCOMM 社 外 秘

직무 발명 신고서

신고일:2002년 11월 30일

발명실 결재	업무코드		승인권자
	주발명자	검토	팀장
직위/성명	사원/박정희	/	차장/정성현
일 자	11/30	/	11/30
보존년한	0.1.2.3.5.10.영구		

현장관리자	검토
	/
관리번호	

법제특허부 결재	업무코드		승인권자
	기안	검토	승인
직위/성명			
일 자			
보존년한	1.3.5.10.영구	보안등급	1.2.3 대외비

사내 직무발명보상기준에 의거하여 출원/등록을 의뢰하며,국내/외 등록권리를 양도합니다.

발명자 기재사항

발명의 명칭	HAMS-5 switched Router 간에 ENLA, IFCA를 통한 IP Packet 전송 시험 기능
발명의 개요	1. HAMS-5 switched router를 통한 ENLA,IFCA간 데이터 전송,수신 기능이 정상적으로 수행되는지의 기능. 2. 시스템간 IFCA-ENLA <-> ENLA-IFCA 연결시 IP Packet 전송기능. 3. 시스템간 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 연결시 IP Packet 전송기능.
관련PROJECT명	HAMS-5 switched router 개발
실 시 상 황	□ 착상 ■ 설계완료 □ 시험(중,완료) □ 사업화(준비중,실시중)
본발명의 발표상황	■ 미발표 □ 발표예정 □ 旣발표 ※旣발표 또는 발표 예정인 경우 발표(예정)일과 관련논문등 기입 요망 [발표(예정)일:2000년 월 일. 관련논문:]
선행특허자료	국 내 : 외 국 :
출원완급	■ 보 통 □ 지 급-->(일이내) 지급출원 이 유 :
외국출원	□ 유 (이유:) ■ 무
KEY WORD	

법제특허부 기재사항

접 수 일	2002년11월30일	대리인	제스	전담자관리번호 P2002-12-0064
국내출원	☑ 특허 □ 실용 □ 공개기보 □ 출원보류(이유:)			
	심사청구	□ 유 ☑ 무	전략특허PROJECT명	23
외국출원	□ 유 □ 무		출원등급	B
	심의여부	□ 유 □ 무	*대리인 특허명세서작성 참조사항*	

출원국가선정				
□ 개별국출원 □ EPO출원 □ PCT출원				
1순위		5순위		
2순위		6순위		
3순위		7순위		
4순위		8순위		
비고				

□ 사무소 자체 국내출원 ☑ 특허팀검토후 국내출원.
□ 국내외 동시출원

검토의견: OK

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발명실장 기재사항

< 발명 평가내용 >

구 분	내 용	평가점수
기 술 성	단순 조합 기술임	☐ 1점
	약간 높은 수준을 요하는 기술임	☑ 3점
	고도의 수준을 요하는 기술임	☐ 5점
실현가능성	이론상 실현은 가능하나, 실험계획은 없슴	☐ 1점
	테스트 하려면 관련기술의 발전이 요구됨	☐ 2점
	테스트중이거나 예정임	☐ 3점
	양호한 테스트 결과 얻음(자료첨부 가능)	☐ 5점
	현재 사업화 준비중 또는 실시중임	☑ 7점
효 과	개선된 효과의 수준은? (공정 단순화, Yield, Cost 등의 측면)	☐ 3점 ☑ 2점 ☐ 1점
발명중요도	기술공개로 타사 권리확보를 방어하는 수준임	☐ 1점
	양산에 적용(예정) 가능한 발명임	☑ 3점
	반드시 필요한 독점 기술임	☐ 5점
평가결과		(15) 점

주)※상기 발명 평가표는 반드시 실장이 직접 기재하시기 바랍니다.
※"실현가능성"란에서 5점.7점에 해당된 발명은 증빙 자료가 반드시 필요 합니다.
※평가를 완료하신후 평가결과를 기입 바랍니다.

< 외국출원 평가내용 >

발명의 적용제품 현 황	*적용제품: *관련기술: *적용시기:	*복수제품에 적용되는 경우 전부 기재하시기 바라며, 향후 적용 제품경우 예상시정을 기재요망
평가내용	☐ 절대 필요 ☐ 국내출원후 1년간 관망 ☐ 필요 없음 ☐ 개별국출원, ☐ EPO출원, ☐ PCT출원	출원희망국가 1순위 / 2순위 / 3순위 / 4순위 / 5순위 / 6순위 / 7순위 / 8순위
	기술적측면	
	경제적측면	평가자 성명: 직위: 서명:

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발명자 인적사항								
발명자 1	성명	(한글) 박 정희		(Soft Ware) 개발 Group	(네트웍 개발)실			
		(한문) 朴 正禧	직위	사원	사번	H26771	TEL (8040)	
		(영문) Park Jung Hee	주민등록No	[redacted]				
	E-mail	mlrine@hysyscomm.com	주소	(467-701) 경기도 이천시 부발읍 아미리 산 136-1			서 명	
발명자 2	성명	(한글)		( ) 개발 Group	( )실			
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 3	성명	(한글)		( ) 개발 Group	( )실			
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 4	성명	(한글)		( ) 개발 Group	( )실			
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 5	성명	(한글)		( ) 개발 Group	( )실			
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	
발명자 6	성명	(한글)		( ) 개발 Group	( )실			
		(한문)	직위		사번		TEL ( )	
		(영문)	주민등록No	-				
	E-mail		주소	(-)			서 명	

㈜1. 주소는 상세히 기재하시고, E-mail은 반드시 *회사계정*으로 기재하시기 바람.
2. 영문기재시 Fullname을 기재하시기 바람.

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Confidential

Employee's Declaration of Invention

Date: November 30, 2002

Invention Team	Approval	Work Code		Approving Authority	On-the-job Maintenance Team	Reviewer	Patent Team	Approval	Work Code		Approving Authority
		Primary Inventor	Reviewer	Approved by					Drafter	Reviewer	Approved by
		Signed	-	*Signed*					*signed*	*signed*	*signed*
	Position / Name	SW/Jung Hee PARK		CJ/JEONG, S.H.		/		Position / Name	SW/LEE, Chun Mi	DL/YOON, Hyoung Jin	
	Date	Nov.27		Nov. 30	Control No.			Date			
	Years in Storage	0, 1, 2, 3, 5, 10, Permanent						Years in Storage	1, 3, 5, 10, P	Security Rating	1, 2, 3, Confidential

Under the provisions of the employee's invention compensation policy, I request to proceed with the filing/registration of my invention and to assign its rights for domestic and international registrations.

Statement by Inventor

Title of the Invention	Function to test IP packet transmission between HAMS-5 switched routers by means of ENLA and IFCA	
Summary of the Invention	The present invention provides the following functions: 1. To test if data transmission/reception functions of ENLA and IFCA are normally operated between HAMS-5 switched routers; 2. To transmit IP packets when IFCA-ENLA and ENLA-IFCA links are set up between systems; and, 3. To transmit IP packets when ENLA-IFCA-SOLA and SOLA-IFCA-ENLA links are set up between systems.	
Name(s) of Related Projects	Development of HAMS-5 switched router	
Status of the Embodiment	☐ Conception ☒ Completed Design ☐ (In, Completed) Testing ☐ (Preparing, In) Business Implementation	
Publication Status of the Invention	☒ Unpublished ☐ Expected to be Published※ ☐ Published Earlier※ ※ If checked, please specify the (scheduled) date of publication and related dissertations. [(Scheduled) Date of Publication: Related dissertations:]	
Prior Art	Korean	
	Foreign	
Filing Term	☒ Standard ☐ Urgent → (Within days)	Reason for Urgent Filing:
Foreign Filing	☐ Yes (Reason:) ☒No	
Key Word		

Statement by Patent Team

Date of Receipt	November 30, 2002	Agent	Phoenix patent office	Hyundai Syscomm Ref.	CM2002-12-0064
Korean Filing	☑ Patent ☐ Utility Model ☐ Journal of Technical Disclosure ☐ Withhold Filing (Reason:)				
	Request for Examination	☐Yes ☒ No	Strategic Patent Project for the Invention	23	
Foreign Filing	☐ Yes ☐ No		Filing Rating	B	
	Deliberation	☐ Yes ☐ No	*Remarks for Agents writing the specification*		

Designating Countries to File	☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing				☐ Domestic filing without Review ☑ Domestic filing after Patent Team Review ☐ Simultaneous Korean & Foreign Filing
	1st Priority		5th Priority		
	2nd Priority		6th Priority		Reviewer's Opinion: OK
	3rd Priority		7th Priority		
	4th Priority		8th Priority		
	Note				

Statement by Manager of Invention Team

< Evaluation of the Invention>

Category	Contents	Evaluation Grade
Technology	Simple technology	☐ 1 point
	Slightly higher technology	☒ 3 point
	Advanced technology	☐ 5 point
Possible Implementation	Theoretically possible to implement, but has no plan for testing	☐ 1 point
	Developments in related technologies are required first for testing	☐ 2 point
	Currently testing or planning to test	☐ 3 point
	Tested and obtained satisfactory results (Attach Documents)	☐ 5 point
	Preparing or currently implementing into one's business	☒ 7 point
Effects	What is the level of improvement? (Simplification of processes, yield, cost etc.)	☐ 3 ☒ 2 ☐ 1 point
Importance	Defending the rights in disclosing the technology	☐ 1 point
	Adaptable (or scheduled) for mass production	☒ 3 point
	Absolutely necessary to obtain exclusive technology	☐ 5 point
Evaluation Result		(15)Point

Note: ※ The Invention Evaluation form must be filled out by the manager of the invention team.
※ Evidence is necessary for those inventions that are rated 5 or 7 points in the section of "Possibility for Implementation."
※ The Evaluation Result should be filled in only after completing the Evaluation.

<Evaluation for Foreign Filing>

Status of products to which the invention was applied	* Applied Product: * Related Technology: * Applied Period:	* For cases applied to multiple products, list all product names. For future cases to be applied, mark the estimated period.
Evaluation	☐ Absolutely necessary ☐ Observe for a year after filing domestically ☐ Not necessary	Designation of Countries 1st Priority 2nd Priority 3rd Priority
	☐ Direct National Filing ☐ EPO Filing ☐ PCT Filing	4th Priority 5th Priority
	Technological Factor	6th Priority 7th Priority 8th Priority
	Economical Factor	Evaluator Name: Position: Signature:

Inventor Information									
Primary Inventor	Name	(Korean) 박 정 희	(S/W) Development Group (Network) Team						
		(Chinese) 朴 正 禧	Position	SW	Employee ID No.	H26771	Tel (8040)		
		(English) Park Jung Hee	Residence ID		740320-1222320				
	E-mail	mirine@hysyscomm.com	Address	San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-701			Signature	*signed*	
Joint Inventor	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID		-				%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		
	Name	(Korean)	( ) Development Group ( ) Team						
		(Chinese)	Position		Employee ID No.		Tel ( )		
		(English)	Residence ID						%
	E-mail		Address				Signature		

Note: 1. The full address and e-mail address are required.
2. Write the full name in English.

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발명의 명세서

1.발명의 명칭

발명의 실질적 내용에 대해 가장 적절히 표현할수 있는 명칭을 간결하고 명확하게 기재하되 약자는 가급적 피해주시기 바람.

HAMS-5 switched router의 IFCA(Ip Forwarding Control Board Assembly)-ENLA(Ethernet Link Board Assembly) <-> ENLAEthernet Link Board Assembly)-IFCA(Ip Forwarding Control Board Assembly) 를 통한 IFCA의 ROUTE기능과 ENLA의 Ehternet switching기능에 의한 IP 서비스

2.발명의 상세한 설명

1)산업상의 이용분야

발명이 무엇에 관한 것이며,어느 기술분야에 적용되는지를 기재하고,타 기술 분야에서도 활용이 가능하면 그 기술분야도 기재하시기 바람.

1. 위 발명은 IP 서비스 기능을 이용한 HAMS-5간의 각 node들 간에 Ehternet 서비스를 수행.
2. HAMS-5기능들중에 Ethernet서비스를 할 수 있도록 Router사이에 Ethernet관련 서비스에 적용된다.
3. Router끼리 Ethernet으로 Path를 설정하지 않고 Atm으로 Path를 연결하여 보다 빠르고 다양한 서비스 제공이 가능하다.

2)종래기술의 설명 및 그 문제점

*본 발명이 속하는 기술분야에서 본 발명과 연관되는 종래기술이 어떻게 실시되는지 기술적 구성이나 개요를 비교적 상세히 설명하고,그 문제를 기재하기 바람.
*본 발명과 관련된 참고문헌이나 특허공보가 있으면 문헌명이나 공보번호를 기재하고,.그 자료를 본 명세서에 첨부하시기 바람.

종래의 기술은 ENLA 자체, 또는 IFCA 자체에 대해 기능 시험을 하는 단계였다.
자체 기능도 되지 않는 상황이었고 이와 같은 경우에 ENLA 자체내부 디바이스,
IFCA 내부 디바이스에 대한 검증만 수행한다.
이로 인해 ENLA, IFCA간에 연결되는 경로는 검증하지 못하는 제한이 있다. 그리고 실질적인 Ethernet 서비스 기능을 시험하지 못하는 제약이 있다.

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3)종래 문제점을 해결하기 위한 본 발명의 기술적 원리

*본 발명에서 상기와 같은 기술적 문제점을 어떻게 해결하고 있는지 그 해결책의 요지만을 기재하고, 그 상세한 설명은 다음항에 기재하기 바람.
*어떤 효과를 지닌 어떤기술을 사용하여 어떤 문제점을 해결하였다는 등

1. 종래의 기술적 문제를 해결하기 위해 ENLA, IFCA간의 Atm Path 시험 경로를 구성.
2. IFCA, SOLA간의 Atm Path 시험 경로 구성.
3. MP(Main Processor)에서 네트웍에 대한 정보를 설정하여 IFCA에게 네트웍 정보를 설정.
4. ENLA에서 관리 하는 각 Node들의 Mac_Address를 Table로 유지하여 Mac_Switching 기능이 되도록 설정.
5. IFCA에서는 ENLA, SOLA와 Atm-Path 연결 설정을 수행하고 네트웍 정보를 구성.
6. IFCA 의 Default Routing table을 Sola로 정하여 ATM Path를 통하여 다른 Router로 데이타를 보낼수 있도록 한다.
   이를 통해 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA 에 이르는 경로에 대한 데이터 전송 기능 수행을 수행한다.

4)본 발명의 구성 및 그 전반적인 동작설명

*본 발명은 본 발명이 속하는 기술분야 또는 연관된 기술분야에 종사하는 기술자라면 누구라도 실시할수 있을 정도로 상세하고도 정확한 표현으로 기재하시기 바람.

1. IFCA(Ip Forwarding Control Board Assembly)
   1.1 메인 프로세서(MP)에서 Router간에 Routing정보를 주고 받을 수 있는 Path를 ENLA 가상의 네크웍 정보를 IFCA에 설정.
   1.2 ENLA Port에 연결되는 각 Node들의 GateWay를 설정.
   1.3 IFCA가 네트웍 정보를 받아 IP Routing할수 있는 서비스 준비를 하고 ENLA Port에 연결되는 각 Node들의 GateWay를 설정한다.

2. ENLA(Ethernet Link Board Assembly)
   2.1 ENLA에서는 각 node들로부터 전달되는 Source Mac_Address를 table로 관리한다.
   2.2 ENLA에서 관리하는 Mac_Address table은 timer를 두고 들어 오지 않는 node에 대해서는 Table에서 삭제한다.
   2.3 ENLA에서는 IFCA가 보내주는 Packet의 Destination Mac_Address를 보고 어느 Port로 보낼지 판단하여 해당 Mac_Address가 등록된 Port로 Packet을 보낸다.

3. 기본적인 동작 예.
   IFCA, ENLA의 기본적인 setting이 끝났을때
   3.1 어느 Node에서 다른 Router의 다른 network를 가진 Node와 통신하고자 한다.
   3.2 처음에 Node에서 연결하고자 하는 Node에게 Packet을 던진다.
   3.3 이 Packet은 Enla를 타고 Atm-Switch를 타고 IFCA로 들어 간다.
   3.4 IFCA는 가지고 있는 Routing table을 참조 하여 어디로 보낼지를 결정한다.
   3.5 IFCA가 다시 ENLA로 보낸 Packet은 다른쪽 Router의 ENLA로 들어 간다.
   3.6 Atm-Switch를 거쳐 다시 IFCA로 Packet이 전달되고 IFCA에서는 어디로 보낼지 결정한다.
   3.7 Packet은 IFCA에서 ENLA로 보내게 된다.
   3.8 ENLA에는 Packet에 있는 destination mac_address를 보고 Mac_Address Table에서 해당 mac_address를 검색한다.
   3.9 찾은 mac_address에 해당하는 Port로 Packet을 보내게 된다.

4) 항에서 계속

4. Router 간에 Atm Path를 통한 Ethernet 서비스.

4.1 LAN Cable을 이용하여 ENLA끼리 연결하는 것이 아니다.
4.2 IFCA에서 Atm Path를 Sola와 연결하여 Router간에는 Sola와 Sola로 Atm Path로 연결을 하게된다.
4.3 ENLA-IFCA-SOLA <-> SOLA-IFCA-ENLA
4.4 초기 보드들이 Setup이 이루어 질때 ENLA, IFCA, SOLA사이의 Atm Path는 default로 잡히게 설정.

5. Router간에 Lan-cable연결과 Sola를 통한 Atm Path의 차이.
5.1 Sola를 통한 Atm Path가 Lan-cable을 통한 연결보다 속도가 빠르다.
5.2 5.3에서 나타낸것을 보면 별차이는 없어 보인다. 하지만 ENLA를 거치지 않고 직접 SOLA를 거쳐 IFCA로 가면 중간에 delay를 줄일 수 있다.
5.3
5.2.1 Lan-cable을 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->ENLA<->ENLA<->IFCA<->ENLA<->Node
5.2.2 Atm Path를 통한 연결에서 Node상의 경로.
Node<->ENLA<->IFCA<->SOLA<->SOLA<->IFCA<->ENLA<->Node

6.
6.1 ENLA에서 4Port를 하나의 네트웍으로 구성할 수 있다.
6.2 ENLA에서 2Port씩 두개의 서브 네트웍으로 구성할 수 있다.

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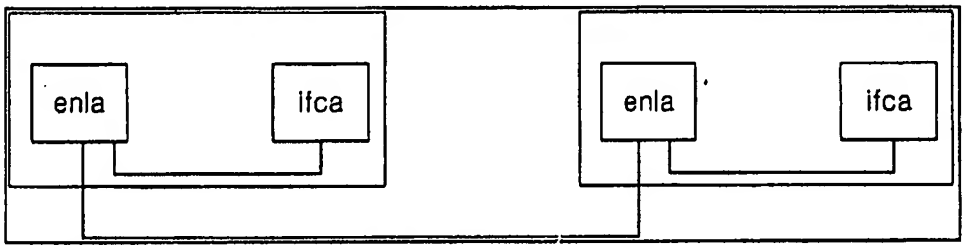
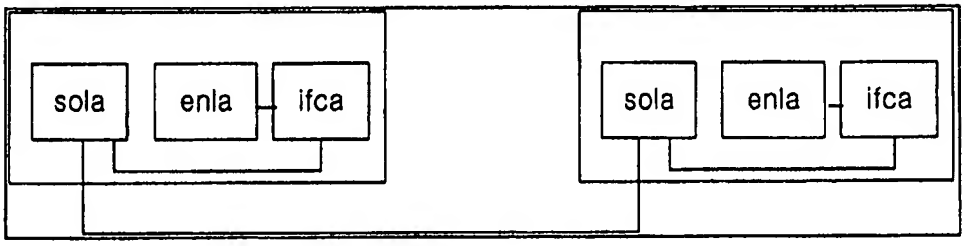
5)본 발명의 다른 실시예

4)항에 기재된 본 발명의 주요 실시예 이외에 다른 실시예가 있으면 도면을 도시하고, 그 내용을 실시할 수 있을 정도로 구체화 하여 기재.

1. Router간에 Lan cable을 사용하지 않고 Atm Path를 통한 연결을 설정한다.
   이렇게 하면 좀 더 속도면에서 향상시킬수 있다.
2. Router간 Atm-Path 연결.





6)본 발명의 효과

본 발명과 종래기술과의 구성 및 동작의 차이에서 오는 효과를 구체적으로 기재하고,부수적으로 발생되는 이점도 기재하나,단 기술적인 근거가 없는 막연한 경제적 효과 등은 기재 불필요.

1.1 ENLA는 Mac_Switching관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.2 IFCA는 Routing관련 기능을 수행함으로 기능의 구분및 차후 기능추가의 용이.

1.3 SOLA를 통한 Atm-Path의 연결에 의한 Atm Switched Router간의 Lan-cable연결에 비해 빠른 전송서브시를 제공할수 있다.

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3.발명의 권리보호 범위

본 항은 발명의 명세서에 기재된 내용중 권리로서 보호 받고자 하는 사항을 기재하되, 본 발명에 의해 새롭게 창작된 구성 혹은 기능만을 기재함.특히,그중 보호를 받아야할 부분이나, 또 다른 실시예가 있는 경우 이를 다른 항으로 명확하고,간결하게 기재하시기 바람.

1. ENLA, SWITCH, IFCA, SOLA 간 데이터 전송을 위한 경로 설정 및 경로 설정 해제 기능

2. 운용자가 원하는 네트웍정보를 입력 받아 라인카드 초기 Setup시 네트웍정보를 받아 네트웍을 구성하는 기능.

3. 네트웍 구성시 서브네트웍을 1개 또는 2개로 구성할수 있는 기능.

4. 같은 서브네트웍인 경우 IFCA까지 가지 않고 바로 Mac_Switching할수 있는 기능.

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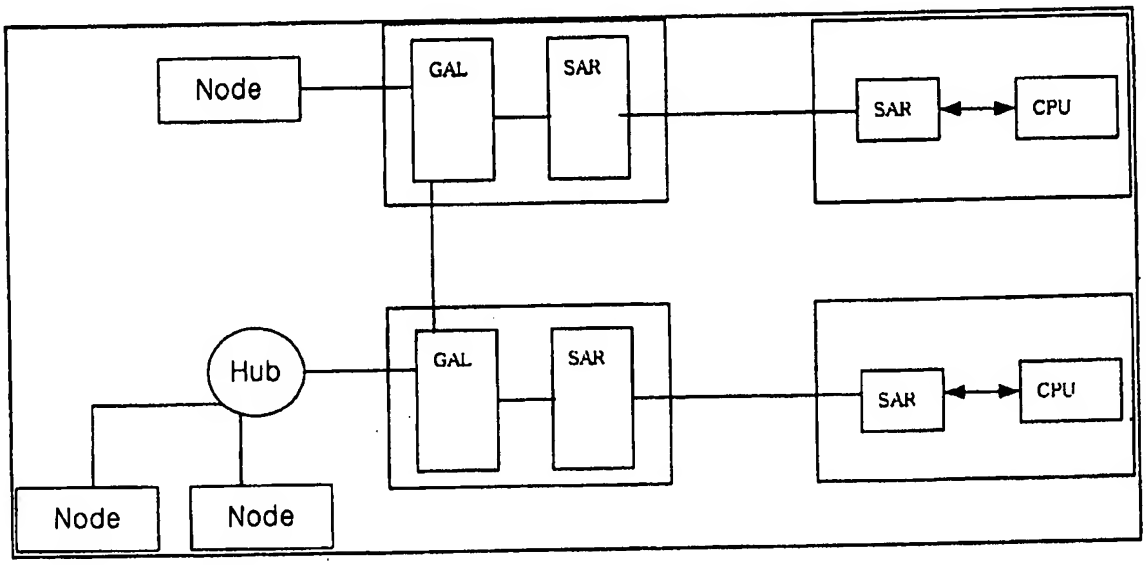
4. 도면의 간단한 설명

※도면의 도시된 내용에 따라 발명자가 의도했던 내용이 변할수 있으므로 본 발명서에 필요한 도면을 정확하게 표시하여,명세서 뒤에 반드시 첨부하시기 바람.
※ ①전자전기회로 관련 출원은 회로도,블록도,FLOW CHART,특성그래프 등이 첨부되어야함.
②기계관련 출원은 전체 구조도,상세 구조도,투시도 등이 첨부되어야 하며,
③공정관련 출원은 전체공정 계통도와 상세공정도 및 특성그래프 등이 첨부되어야 함.
※본 항에 예를들에 "제1도는 XXX 회로도,제2도는 ...소자의 단면도~ ,"와 같이 기재바람.
※도면의 필요한 부분에 대해서는 그 명칭을 본 항 하단부 아래에 기재하시기 바람.
(<예>1:제어부 2:감지부)

1. 밑에 있는 도식은 Router간에 ENLA 보드사이에 Lan cable을 이용하여 Router를 연결하여 운용.

2.

Node -> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
<- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-
-> Galileo -> SAR(ENLA) -> SAR(IFCA) -> CPU(IFCA) ->
Node <- Hub <- Galileo <- CPU(ENLA) <- SAR(ENLA) <- SAR(IFCA) <-



Case No.: 05-500-B

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

the specification of which is attached hereto unless the following space is checked:

☒ was filed on July 11, 2006 as United States Application Serial Number 10/585,586.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 (including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application).

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	Number	Country	Day/Month/Year Filed
1.	PCT/KR2005/000133	PCT	14 January 2005
2.	10-2004-0002981	Korea	15 January 2004

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Robert J. Irvine, III
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Jung Hee PARK

Inventor's signature: _____ Date: _____
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ASSIGNMENT

Case No.: 05-500-B
Inventor: **Jung Hee PARK**
Date of Execution
of Application:

Serial No.: 10/585,586

Filing Date: July 11, 2006

In consideration of One Dollar ($1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

UTSTARCOM KOREA LIMITED

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

and identified as:

Case No. 05-500-B

in the offices of McDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the

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WITNESS my hand and seal this _____ day of _____, _____.

_____
Jung Hee PARK

State of _____

County of _____

The foregoing instrument was acknowledged before me this _____ day of

_____, _____ by _____.

_____
NOTARY PUBLIC

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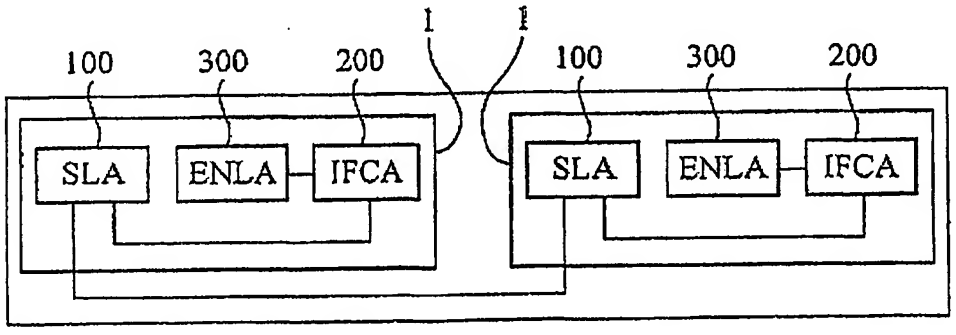
(54) Title: ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA



(57) Abstract: The present invention generally relates to a switch router for use in a High-speed ATM Multi-service Switching system (HAMS), and more particularly to a switch router for transmitting IP packet data comprising: a Switch Link Assembly (SLA) for switching ATM packet data inputted from a higher block to an IP Forwarding Control Assembly (IFCA), the SLA further being operative to switch the ATM packet data inputted from the IFCA to the higher block; an IFCA for routing the ATM packet data inputted from the SLA to an EtherNet Link board Assembly (ENLA), the IFCA further being operative to route the ATM packet data inputted from the ENLA to the SLA; and an ENLA for converting the ATM packet data routed from the IFCA to an Ethernet data and transmitting the Ethernet data to the higher block, the ENLA further being operative to convert the Ethernet data inputted from the higher block to a local ATM packet data and output the local ATM packet data to the IFCA.

WO 2005/069560 A1

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

TECHNICAL FIELD

The present invention generally relates to a switch router for use in a High-speed ATM Multi-service Switching system (HAMS), and more particularly to a switch router for use in HAMS, wherein the constituents of the switch router are connected through ATM paths and the transmission of IP packet data is enabled.

BACKGROUND ART

Fig. 1 is a functional block diagram showing the configuration of the conventional switch router for use in the HAMS. Referring to Fig. 1, the conventional switch router comprises EtherNet Link board Assembly (ENLA) 1 and IP Forwarding Control Assembly (IFCA) 2. However, the technical level of the conventional switch router remained at the stage of merely testing the functions of ENLA 1 and IFCA 2. In addition, ENLA 1 and IFCA 2 failed to function completely and in such case, only the devices within ENLA 1 and IFCA 2 could be verified.

This limited the verification of the path between ENLA 1 and IFCA 2. Thus, the testing of the substantial Ethernet service function was restricted.

Fig. 2 is a functional block diagram showing the detailed configuration of the conventional switch router for use in HAMS. Referring to Fig. 2, the conventional switch router comprises ENLA 1 for switching Ethernet data and IFCA 2 for routing. ENLA 1 comprises switching hub 11 and Segmentation and Reassembly device (SAR) 12, while IFCA 2 comprises SAR 21 and CPU 22. In this switch router, LAN cable is utilized to couple the constituents.

As shown in Fig. 2, the Ethernet data is inputted to switching hub 11 in ENLA 1 via the node. It is then transmitted to SAR 21 in IFCA 2 via SAR 12. The Ethernet data is then routed by CPU 22 in IFCA 2 and transmitted back to SAR 12 in ENLA 1 by SAR 21.

Then, the Ethernet data is transmitted to the other switching hub 11 in the other ENLA 1 through SAR 12 and switching hub 11 in ENLA 1. The Ethernet data is then transmitted to the other CPU 22 via the other SAR 21 in the other IFCA 2. Meanwhile, regarding the communication within ENLA 1, ENLA 1 is capable of converting the Ethernet data into a local Asynchronous Transfer Mode (ATM) packet data.

The Ethernet data is then routed by the other CPU 22 in the other IFCA 2

and transmitted back to the other SAR 12 in the other ENLA 1 via the other SAR 21. The other SAR 12 in the other ENLA 1 then transmits the inputted Ethernet data to the node coupled to the other switching hub 11.

However, in the conventional switch router, the communication is established by transmitting and receiving Ethernet data only. Therefore, the communication speed should be low and the communication with ATM equipment is impossible.

DISCLOSURE OF THE INVENTION

Therefore, the object of the present invention is to solve the above problems. In particular, the object of the present invention is to provide a switch router for use in HAMS, which couples the constituents through ATM paths and enables the transmission of IP packet data. This provides a faster communication service compared to the conventional switch router.

In order to achieve the above objects, the present invention provides a switch router for transmitting IP packet data comprising:

an IFCA for routing the ATM packet data inputted from the SLA to an EtherNet Link board Assembly (ENLA), the IFCA further being operative to route the ATM packet data inputted from the ENLA to the SLA; and

an ENLA for converting the ATM packet data routed from the IFCA to an Ethernet data and transmitting the Ethernet data to the higher block, the ENLA further being operative to convert the Ethernet data inputted from the higher block to a local ATM packet data and outputting the local ATM packet data to the IFCA.

Further, the present invention provides a switch router for transmitting IP packet data, wherein the SLA, the IFCA and the ENLA are connected by fiber optic cable for use in ATM communication.

BRIEF DESCRIPTION OF DRAWINGS

Fig. 1 is a functional block diagram showing the configuration of the conventional switch router for use in HAMS.

Fig. 2 is a functional block diagram showing the detailed configuration of the conventional switch router for use in HAMS.

Fig. 3 is a functional block diagram showing the detailed configuration of the switch router for use in HAMS, which enables the transmission of IP packet data, according to one embodiment of the present invention.

BEST MODE FOR CARRYING OUT THE INVENTION

Hereinafter, a switch router according to one embodiment of the present invention will be described in detail with reference to the accompanying drawing.

Fig. 3 is a functional block diagram of the switch router for use in HAMS, which enables the transmission of IP packet data, according to one embodiment of the present invention. The switch router comprises Switch Link board Assembly (SLA) 100, IP Forwarding Control Assembly (IFCA) 200, and EtherNet Link board Assembly (ENLA) 300.

SLA 100 switches ATM packet data inputted from higher block 1 to IFCA 200. SLA 100 also switches the ATM packet data inputted from IFCA 200 to higher block 1.

IFCA 200 routes the ATM packet data inputted from SLA 100 to ENLA 300. IFCA 200 also routes the ATM packet data inputted from ENLA 300 to SLA 100.

ENLA 300 converts the ATM packet data routed from IFCA 200 to an Ethernet data and transmits the Ethernet data to higher block 1. ENLA 300 also converts the Ethernet data inputted from higher block 1 to a local ATM packet data and transmits the local ATM packet data to IFCA 200. Further, ENLA 300 manages the source MAC address, which is transferred form each higher block, as a table, and transmits the packet data to the packet's destination MAC address sent from IFCA 200.

The operations of the switch router for use in HAMS, which has the constitutions described above, will now be described with reference to Fig. 3.

The communication between some higher block (node) 1 and another higher block (node) 1 having network of another switch router will be described.

First, when the Ethernet data is inputted to ENLA 300 from higher block (node) 1, ENLA 300 converts the Ethernet data inputted from higher block (node) 1 to the local ATM packet data and transmits the local ATM packet data to IFCA 200. The ENLA 300 comprises a switching hub that may be connected to higher block (node) 1, a SAR that serves as a vocoder/devocoder, and a CPU that performs MAC switching. Therefore, the Ethernet data inputted from higher block (node) 1 is received by the switching hub, converted to the ATM packet data by the SAR, and then MAC switched to IFCA 200 by the CPU.

Then, IFCA 200 determines the head information of the ATM packet data inputted from ENLA 300 and transmits the ATM packet data to SLA 100. SLA 100 may be connected to a number of SLAs through a hub, and IFCA 200 determines the destination of the ATM packet data, which is outputted from SLA 100.

SLA 100 then transmits the ATM packet data to the other SLA 100. When communicating with higher block (node) 1, which processes the ATM packet data, SLA 100 is connected through the other SLA 100.

The other SLA 100 then transmits the inputted ATM packet data to the other IFCA 200. Then, the other IFCA 200 determines the head information of the inputted ATM packet data and routes the ATM packet data to the other ENLA 300. Accordingly, the other ENLA 300 converts the inputted ATM packet data to the Ethernet data and MAC switches the Ethernet data to the other higher block (node) 1.

The switch router of the present invention, which enables the transmission of IP packet data, provides a faster communication service compared to the conventional switch router, where LAN cable is used for connection. Also, the invention implements the controls for Ethernet data and ATM packet data independently to thereby facilitate adding additional functions.

The present invention is described with reference to the preferred embodiment and the drawing, but the description is not intended to limit the present invention to the form disclosed herein. It should also be understood that a person skilled in the art is capable of using a variety of modifications and other embodiments equal to the present invention. Therefore, only the appended claims are intended to limit the present invention.

INDUSTRIAL APPLICABILITY

The switch router of the present invention enables the transmission of IP packet data and provides a faster communication service compared to the conventional switch router, where LAN cable is used for connection. Also, the invention implements the controls for Ethernet data and ATM packet data independently to thereby facilitate adding additional functions.

CLAIMS

1. A switch router for transmitting IP packet data, comprising:

a Switch Link board Assembly (SLA) for switching an ATM packet data inputted from a higher block to an IP Forwarding Control Assembly (IFCA), the SLA further being operative to switch the ATM packet data inputted from the IFCA to the higher block;

an IFCA for routing the ATM packet data inputted from the SLA to an EtherNet Link board Assembly (ENLA), the IFCA further being operative to route the ATM packet data inputted from the ENLA to the SLA; and

an ENLA for converting the ATM packet data routed from the IFCA to an Ethernet data and transmitting the Ethernet data to the higher block, the ENLA further being operative to convert the Ethernet data inputted from the higher block to a local ATM packet data and outputting the local ATM packet data to the IFCA.

2. The switch router as claimed in claim 1, wherein the SLA, the IFCA and the ENLA are connected by fiber optic cable for use in ATM communication.

1/1

Fig. 1
(Prior Art)

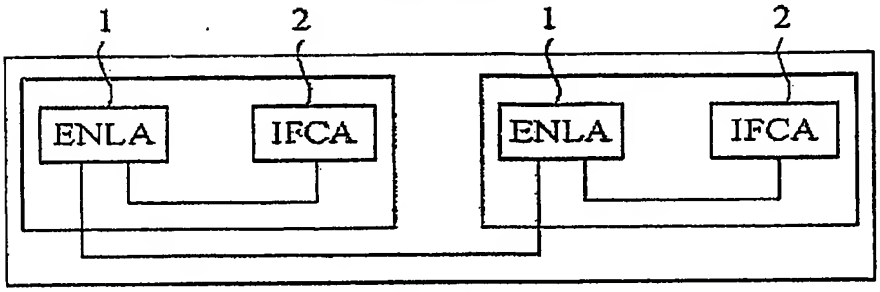


Fig. 2
(Prior Art)

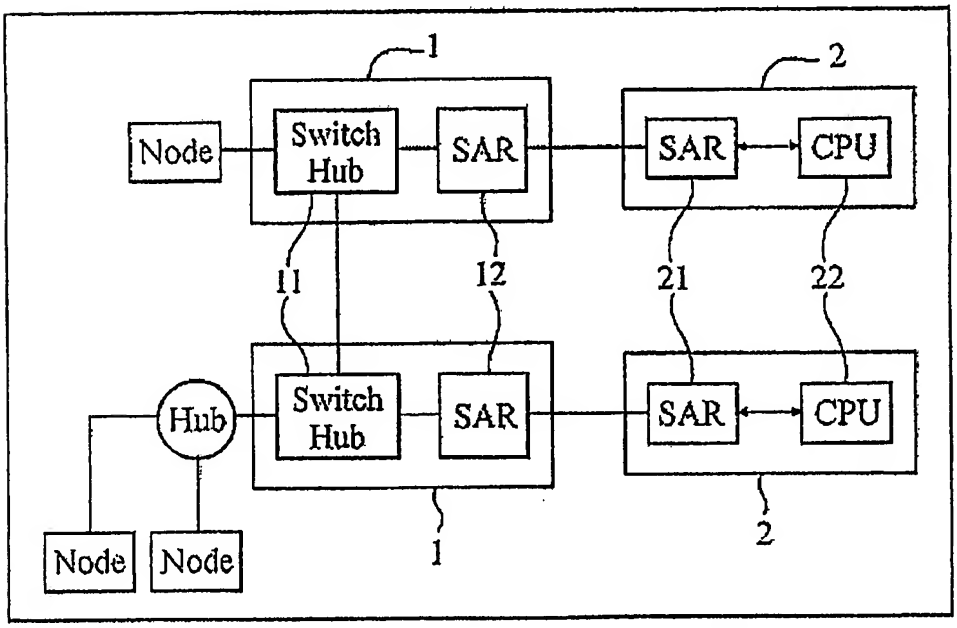
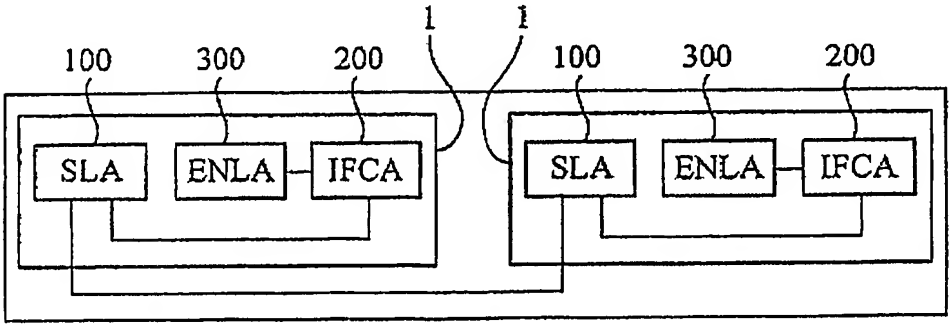


Fig. 3



zjwlim (Ji-Won Lim)

보낸 사람: Mail Delivery System [MAILER-DAEMON@mailex01.paran.com]
보낸 날짜: 2007년 2월 28일 수요일 오후 6:29
받는 사람: zjwlim (Ji-Won Lim)
제목: Delivery Status Notification (Failure)

첨부 파일: ATT648221.txt; [박정희님] 김.장법률사무소입니다. (FE251546)

ATT648221.txt
(305 B)

[박정희님]
률사무소입니다. (

The following message to <mirine0320@paran.com> was undeliverable.
The reason for the problem:
5.1.0 - Unknown address error 554-'Transaction failed. '

[Translation]

From: Mail Delivery System [MAILER-DAEMON@mailex01.paran.com]
Date: February 28, 2007 6:29 PM
To: zjwlim (Ji-Won Lim)
Subject: Delivery Status Notification (Failure)
Attachment(s): ATT648221.txt
[To. Mr. Jung Hee PARK] An announcement from Law offices of Kim & Chang (FE251546)

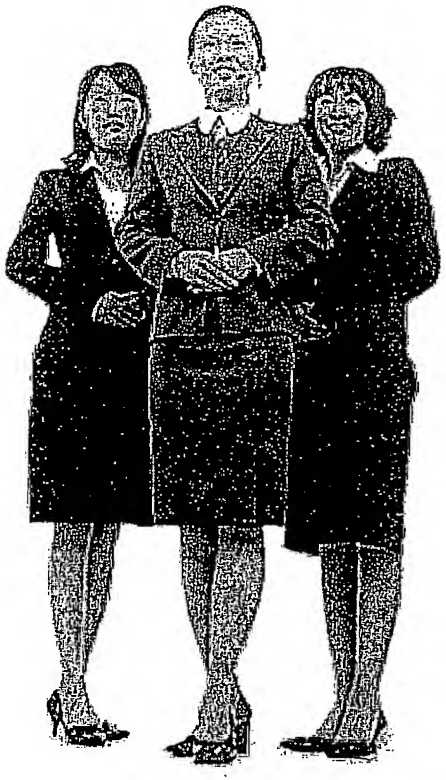
The following message to <mirine0320@paran.com> was undeliverable. The reason for the problem: 5.1.0 – Unknown address error 554-'Transaction failed.'

EXHIBIT 5

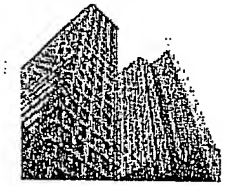
KOIS
안국인포서비스㈜

Korea Information Service

Seventy years of the directory
Assistance Service
will care on as the better public secretary

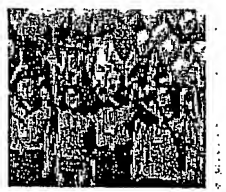


KOIS Company Info



KOIS Company
Overview

KOIS CEO'S
Message



KOIS
Vision

KOIS Product Info

- Directory Assistance Service
- Priority Directory Assistance Service
- Ad while Awaiting
- Call Center Consulting
- nice114
- Process Application to Subscribe KT Product
- Contrast Number DB Service

KOIS Invest Relation

- Business Result
- Stockholder / Shares Status
- Financial Information

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Korea Information Service
Product

Nice114

Nice114 Info

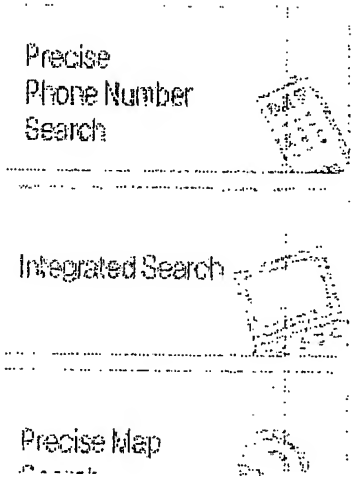
Service Overview

The KT 114 phone number voice assistance service is provided through wired/wireless internet whereby phone numbers and map information can be obtained by entering business names, business categories, names of people, or the keyword of services, and is the nation's best regional portal internet service providing useful everyday life information.

NICE114.CO.KR
전화번호와 지도가 한눈에

- Website Address : www.nice114.co.kr

Service Types



- precision and speed of the KT phone number DB! Phone number search service.
  new data updated twice daily based on the nation's largest KT phone number DB.
- one click! Integrated search service.
  nice priority information, business name information, business category information, life information numbers (080, 15xx, 700, public complaints, phone number changes) simultaneous search.
- powerful nice 14 map search service

Search

map search service providing 2D/3D maps together with shortest distance directory assistance.

MY 114

- My smart service
  various personal services provided such as schedule management, address book, memo pad, scrap book etc.

Community Service

- only the essential information collected
  provision of a community area where members can directly post/obtain essential information arranged in themed categories.

A variety of everyday life information services

- zip code search & subway station search (connecting line information)
- weather information service, accommodation search & reservations
- various document forms & legal information, lost children search service
- other contents to be continuously gained and provided

Close area search service (our neighborhood selection)

- service providing everyday life information for areas of interest by the user selecting a specific area

Service Inquiry

:: Tel | 02-2235-0385

:: Make Inquiry (Direct to Inquiry)

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KOIS
한국인포서비스(주)

HOME | SITEMAP | KOREA

Home / Product / Direct Assistance / Basic Service

Korea Information Service
Product

Directory Assistance Service

Basic Service

Service Overview

A service which searches and provides phone numbers when customers dial '114' and request the phone number of a subscriber with a specific category or business name (or person's name).

How to use

:: Standard Phone	Dial '114' or 'Area Code + 114'
:: Public Pay Phone	After inserting 100 won, dial '114' or 'Area Code + 114'
:: Cellular Phone & PCS	Dial 'Area Code + 114'

- For quick and precise directory assistance service, please state the correct business name (or person's name) and address (the location).

Charges

	Charges for Use	Particulars
Standard time	\120/number provided	No call charges
Premium time	\140/number provided	No call charges

:: Standard time	weekdays: 09:00 ~ 18:00, Saturday: 09:00 ~ 13:00
:: Premium time	weekdays: 00:00 ~ 09:00, 18:00 ~ 24:00 Saturdays: 00:00 ~ 09:00, 13:00 ~ 24:00 Public Holidays: 00:00 ~ 24:00

200-16 Sungin2-Dong, Jongro-Gu, Seoul, 110-522, Korea
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EXHIBIT 6

zjwlim (Ji-Won Lim)

보낸 사람: zjwlim (Ji-Won Lim)
보낸 날짜: 2007년 5월 17일 목요일 오후 5:12
받는 사람: 'goinha@hanmail.net'; 'mirine0320@paran.com'
참조: jykim1 (Joo-Young Kim)
제목: [박정희님] 김.장법률사무소입니다. (FE251546)
첨부 파일: FE251546-박정희-서명서류.pdf

수 신 : 박정희 님
경기도 이천시 부발읍 아미리 산 136-1 (우.467-860)
제 목 : 미국 특허 출원 제 10/585,586 호
당소 정리 번호 : FE251546

박정희 선생님,

여러차례 서신을 송부해드렸는데도 본건과 관련하여 아무런 의사표현이 없으셔서 다시 한번 연락드립니다.

귀하의 발명에 대해 특허를 받을 수 있는 권리는 유티스타콤에 있습니다. 유티스타콤은 귀하의 발명에 대해 해외 출원을 진행 중에 있습니다만, 유럽, 중국, 일본 등과는 달리 미국은 발명자의 서명 서류를 필요로 하고 있습니다. 이러한 서류의 제출은 발명자가 협조하지 않으면 불가능하게 되겠지만 이 경우에는 발명자가 협조하지 않는다는 것을 증명할 수 있는 관련 서류로 갈음함으로써 꼭 제출하지 않아도 무방합니다.

서명을 하고 안하고의 득실관계에 있어 특별한 사항은 없습니다. 다만 귀하께서는 이전소속 직장에서 소정의 보상을 받고 직무발명 양도서에 서명함으로써 특허를 받을 권리를 타인에게 넘겼기 때문에 특허를 받을 권리의 최종 승계자가 특허를 받을 수 있도록 신의 성실로 협조하여야할 의무가 있다고 추정할 수 있습니다. 또한가지는 서명을 하겠다는 취지와 함께 서명과 관련된 시간 소비등에 대한 보상을 요구하는 경우 유티스타컴 미국 본사에서 소정액($250;변화가 있을 수 있음)을 지급한다는 결정이 있었습니다.

상기 설명을 참조하시고 서명 협조에 대한 귀하의 의견을 본 메일에 회신으로 통지해주시기 바랍니다. 서명을 해주실 경우 첨부한 서명서류의 지정된 위치에 서명하여 당 사무소 착불로 택배/퀵서비스편으로 서류 원본을 보내주시기 바랍니다. 서명을 안하겠다고 하시는 경우에는 미국 특허청에 이 사실을 증거자료와 함께 제출하도록 하겠습니다.

기타 궁금하신 사항은 아래 담당자에게 연락주시기 바랍니다.

김.장법률사무소
변리사 김주영 (전화 02-2122-3561)
과장 임지원 (전화 02-2122-3838)

첨부됨있음: 서명서류(발명자선언서 및 양도증)

ps. 사인한 원본서류 발송시, 아래 양식도 채워서 함께 보내주시기 바랍니다.

사 례 금 (Courtesy Disbursement)	
이름 (Name)	박 정 희 (Jung Hee PARK)
미국 특허 출원 번호 (U.S. Serial No.)	10/585,586
사무소 관리 번호 (K&C Ref. MBHB Ref.)	FE251546/ 05-500-B
본인명의은행정보 (Bank Info.) 거래은행 (Bank Name) 계좌번호 (Account No.)	
등기우편수령가능주소 (Address for Correspondence)	

2007-05-17

전화번호 (Telephone No.)	
금액 (Amount)	US$250
자필서명 (Acceptance Signature)	
서명일자 (Date)	

Ji-Won Lim
zjwlim@ip.kimchang.com
직통 : (02) 2122 3838

金·張 法律事務所
서울시 종로구 신문로 1가 226 흥국생명빌딩 9층 우편번호 110-786
전화: (02) 764-8855 / (02) 2122-3900 (대표)
팩스: (02) 741-0328 / (02) 745-5954 / (02) 763-7434

위 전자우편에 포함된 정보는 위에 기재된 수신인만을 위해 발송되는 것으로서 보안을 유지해야 하는 정보 및 법률상 또는 다른 사유로 인하여 공개가 금지된 정보가 들어 있을 수 있습니다. 귀하가 이 전자우편의 지정 수신인이 아니면 이를 무단으로 보유, 전송, 배포할 수 없으며, 일부의 내용이라도 공개, 복사해서는 안됩니다. 그러므로, 잘못 수신된 경우에는 즉시 전화 또는 전자우편 주소(all@ip.kimchang.com)로 연락하여 주시고, 원본 및 사본과 그에 따른 첨부 문서를 모두 삭제하여 주시기 바랍니다.

[Translation]

[E-mail to the inventor Jung Hee PARK from K&C staff, Jiwon Lim]

From: zjwlim (Ji-Won Lim)
Date: May 17, 2007 5:12 PM
To: goinha@hanmail.net; mirine0320@paran.com
Cc: jykim1 (Joo-Young Kim)
Subject: [To. Mr. Jung Hee PARK] An announcement from Law offices of Kim & Chang (FE251546)
Attachment(s): FE251546-PJH –SIGNATURE DOCUMENTS. PDF

To: Mr. Jung Hee PARK
San 136-1, Ami-ri, Bubal-eub, Icheon-si, Gyeonggi-do 467-860, Republic of Korea
Re: U.S. Patent Application No. 10/585,586 (Our Ref. FE251546)

Dear Mr. Park,

This is a reminder with regard to the subject case.

As I explained several times before, the right to receive a patent was transferred to UTStarcom Korea Limited. With respect to this invention, a Korean patent application was filed and its counterpart foreign applications were filed by UTStarcom. Unlike other countries such as Europe, China, and Japan, the U.S. Patent law requires documents signed by the inventors. Therefore, if the inventor is uncooperative, the assignee cannot submit the required documents. However, the assignee can substitute the required documents with due diligence documents evidencing the inventor's noncooperation.

Signing of the documents we presented to you results in no loss or no gain to you. It is our understanding that you had assigned your right to your former employer company by signing on the Inventor's Declaration and Assignment. Thus, you are expected to duly cooperate with the right owner or its successor.

For your information, recently we were instructed to pay (currently USD 250) as courtesy disbursement for the inventors assistances in providing signatures.

Please consider the foregoing and let us know via return e-mail whether you wish to cooperate in this matter or not. If you decide to cooperate, please return the signed documents together with the below form. If not, we will incorporate your decision in a due diligence document, which will be filed with the U.S. Patent and Trademark Office.

If you have any other questions, please do not hesitate to contact me.

[Translation]

Law Offices of Kim & Chang
Patent Attorney Joo-Young Kim (Tel. 02-2122-3561)
Assistant Manager Jiwon Lim (Tel. 02-2122-3838)

ps. Please also provide us with your bank information and signature in the below form.

사 례 금 (Courtesy Disbursement)	
이름 (Name)	박 정 희 (Jung Hee Park)
미국 특허 출원 번호 (U.S. Serial No.)	10/585,586
사무소 관리 번호 (K&C Ref. MBHB Ref.)	FE251546/ 05-500-B
본인명의은행정보 (Bank Info.) 거래은행 (Bank Name) 계좌번호 (Account No.)	
등기우편수령가능주소 (Address for Correspondence)	
전화번호 (Telephone No.)	
금액 (Amount)	USD250
자필서명 (Acceptance Signature)	
서명일자 (Date)	

Case No.: 05-500-B

DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:
My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

the specification of which is attached hereto unless the following space is checked:

☒ was filed on July 11, 2006 as United States Application Serial Number 10/585,586.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 (including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application).

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

	Number	Country	Day/Month/Year Filed
1.	PCT/KR2005/000133	PCT	14 January 2005
2.	10-2004-0002981	Korea	15 January 2004

I hereby appoint the practitioners associated with the Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and I direct that all correspondence be addressed to that Customer Number.

Customer Number: **020306**
Principal attorney or agent: Robert J. Irvine, III
Telephone number: 312-913-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first inventor: Jung Hee PARK

Inventor's signature: _____ Date: _____
Residence: San 136-1, Ami-ri, Bubal-eub Icheon-si, Gyeonggi-do 467-860, Republic of Korea
Citizenship: Republic of Korea
Post Office Address: San 136-1, Ami-ri, Bubal-eub Icheon-si, Gyeonggi-do 467-860, Republic of Korea

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

ASSIGNMENT

Case No.: 05-500-B
Inventor: **Jung Hee PARK**
Date of Execution
of Application:

Serial No.: 10/585,586

Filing Date: July 11, 2006

In consideration of One Dollar ($1.00) and other good and valuable considerations in hand paid, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assigns to:

UTSTARCOM KOREA LIMITED

its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in an application for Letters Patent of the United States, entitled:

ATM SWITCHED ROUTER FOR TRANSMITTING IP PACKET DATA

and identified as:

Case No. 05-500-B

in the offices of McDONNELL BOEHNEN HULBERT & BERGHOFF LLP and in said application and any and all other applications, both United States and foreign, which the undersigned may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and foreign countries, which may be obtained on any of said applications, and in any reissue or extension of such patents, and further assigns to said assignee the priority right provided by the International Convention.

The undersigned hereby authorizes and requests the Commissioner of Patents and Trademarks to issue said Letters Patent to said assignee.

The undersigned hereby authorizes and requests the attorneys of record in said application to insert in this assignment the filing date and serial number of said application when officially known, and the date of execution of the application.

The undersigned warrants himself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations the undersigned hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations the undersigned authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

ability of the undersigned with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment had not been made.

WITNESS my hand and seal this _____ day of _____, _____.

_____
Jung Hee PARK

State of _____

County of _____

The foregoing instrument was acknowledged before me this _____ day of

_____, _____ by _____.

_____
NOTARY PUBLIC

McDONNELL BOEHNEN
HULBERT & BERGHOFF LLP
300 SOUTH WACKER DRIVE
CHICAGO, ILLINOIS 60606
TELEPHONE (312) 913-0001

zjwlim (Ji-Won Lim)

보낸 사람: Mail Delivery System [MAILER-DAEMON@mailex03.paran.com]
보낸 날짜: 2007년 5월 17일 목요일 오후 5:33
받는 사람: zjwlim (Ji-Won Lim)
제목: Delivery Status Notification (Failure)

첨부 파일: ATT301889.txt; [박정희님] 김.장법률사무소입니다. (FE251546)

ATT301889.txt
(414 B)

[박정희님]
률사무소입니다. (

The following message to <mirine0320@paran.com> was undeliverable.
The reason for the problem:
5.1.0 - Unknown address error 554-'Transaction failed. '

[Translation]

From: Mail Delivery System [MAILER-DAEMON@mailex01.paran.com]
Date: May 17, 2007 5:33 PM
To: zjwlim (Ji-Won Lim)
Subject: Delivery Status Notification (Failure)
Attachment(s): ATT301889.txt
[To. Mr. Jung Hee PARK] An announcement from Law offices of Kim & Chang (FE251546)

The following message to <mirine0320@paran.com> was undeliverable. The reason for the problem: 5.1.0 – Unknown address error 554-'Transaction failed.'